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LOFT HOUSING IN EDMONTON'S DOWNTOWN WAREHOUSE DISTRICT: A FEASIBILITY STUDY

May 1991

Prepared for:

Edmonton Downtown
Development Corporation

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The views and conclusions expressed and the recommendations made in this report are entirely those of the authors and should not be construed as expressing the opinions of Alberta Municipal Affairs.

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FOREWORD

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EXECUTIVE SUMMARY

Executive Summary

In November of 1990 the Edmonton Downtown Development Corporation (EDDC) initiated this study to explore the feasibility of converting under-utilized warehouse space in the downtown to loft residences, and to ultimately foster the development of an actual pilot project. The study was funded in part by a $25,000 grant from Alberta Municipal Affairs through the Innovative Housing Grants Program.

The loft is a relatively new housing form which has its roots in the romance of urban pioneering. Early lofts were a popular form of housing for artists who wanted inexpensive studio and living space in the heart of large urban centres. The classic loft is located in a turn-of-the-century warehouse or more modern light industrial building, and is characterized by generous open space punctuated by exposed structural supporting timbers and beams. The ample floor-to-ceiling clearances of these structures often allows for a mezzanine platform, or loft, to be built which can serve as a living or work space.

Conversion of warehouses to loft housing in Edmonton's warehouse district offers a unique opportunity to revitalize an area which has lost its commercial significance, yet grows increasingly more valuable by virtue of its accessibility to primary retail, commercial, educational, entertainment, cultural and transportation facilities.

Following is a summary of the principal conclusions of the study:

- There is market demand for this type of housing in the Edmonton market. However, the market is small with an optimal project size ranging between 20 and 30 condominium units.
- A warehouse conversion project could provide an important stimulus for further innovative housing projects aimed at attracting and maintaining a residential population in the downtown.
- The detailed assessment of the H. V. Shaw Building did not evidence strict economic feasibility. However, cost and prospective revenues were not far apart and conversion appeared to be a reasonable option for the current owner to consider. Given the variety of options available in approaching a project of this type it is apparent that conversion could well be viable for other buildings in the study area.
- Warehouse conversion to loft condominium units can be considered an "upscale" form of housing. Contemporary building codes, high restoration costs, and consumer demands and expectations have evolved to a point where lofts are competitive in terms of price with other forms of downtown housing such as high-rise condominiums.
- The majority of respondents interviewed for the study indicate that they wanted to purchase unfinished "shell space" with only the most basic fixtures and finishes. A large part of the appeal of this form of housing is the ability for an owner to finish the interior space to suit their individual lifestyle and personal tastes.
- This form of housing is fully feasible under the guidelines of the newly revised 1990 Building Code.
- Edmonton's downtown possesses four characteristics which generally provide a strong environment for residential development, namely:
  i) Large white collar and professional work force as evidenced by substantial office development;
  ii) A recent history of successful redevelopment, particularly retail projects;
  iii) A concentration of cultural institutions and entertainment activities; and
  iv) Geographic compactness.
- Based on market research a warehouse conversion project should provide enclosed parking on the site to a minimum standard of one stall per unit.

- Nine (9) buildings were identified in the study area as candidates for conversion and the H. V. Shaw Building (10229 - 105 Street) was examined in detail. Typically these buildings provide a negative cash flow to their owners in their present condition.
- City of Edmonton planning policies, including zoning requirements, are conducive to this type of development. Policies also exist at the municipal level which allow for public financial support of a conversion project through property tax relief for up to seven (7) years.
- Based on demographic information gathered for the study a typical loft dweller would be a young single (average age 35 years) or two-person professional household. This profile is consistent with findings in other Canadian cities. Another large and growing segment of the market for this type of housing is "empty nester" couples between 45 and 60 years of age.
- The Edmonton Downtown Development Corporation should take a lead role in soliciting interest from qualified developers who may wish to pursue the concept. Also, owners of warehouse buildings which are deemed suitable for conversion should be approached as a condominium loft project could prove attractive as a means of relieving the owner of an existing negative cash flow.

SECTION ONE

INTRODUCTION

1.1 Purpose of the Study

The Edmonton Downtown Development Corporation (EDDC) is a public-private partnership between the City of Edmonton and its business community dedicated to revitalizing Edmonton's downtown core. Created in 1986, as a non-profit corporation, the EDDC's Mission is to work as a catalyst, broker and advocate to establish downtown Edmonton as the economic, cultural and social hub of Northern Alberta.

The EDDC, recognizing the importance of a large residential population to the health and vitality of a city centre, with the support of a grant from Alberta Municipal Affairs, resolved to explore new housing opportunities downtown. Vacancy rates in Edmonton's rental housing market have dropped considerably in the last two years, which will likely lead to increases in rental rates over time and, in turn, make the development of inner city housing more viable.

The warehouse district offers a unique opportunity to develop "loft" housing, where older warehouse buildings are converted to residential apartments. There is an existing stock of vacant and underutilized warehouse buildings in this district, some of them historically significant and of interesting character.

While warehouse conversions to residential uses have been successfully undertaken in many other cities, no such conversions have been done in Edmonton. This study examines the physical, economic and regulatory feasibility of converting warehouse space to residential units in downtown Edmonton. The Edmonton Downtown Development Corporation hopes to help foster a "lighthouse" or demonstration project, as a means of stimulating additional residential redevelopment of this type.

1.2 Study Scope and Focus

The study encompasses the following aspects of research:

- a review of the experience in other Western Canadian cities respecting conversion of warehousing to residential use;
- an analysis of the factors which would influence residential development in the warehouse district of downtown Edmonton;
- investigation of potential buildings;
- selection of one building for more detailed examination;
- a review of the building's physical attributes and design of its conversion to apartments;
- preparation of construction cost estimates;
- examination of the physical and economic feasibility of its conversion to loft residential use; and
- a plan for proceeding with a demonstration warehouse conversion project, to stimulate additional similar projects.

The boundaries of the warehouse district study area are 103 Street to 109 Street and 104 Avenue to the lane north of Jasper Avenue. This area is illustrated below.

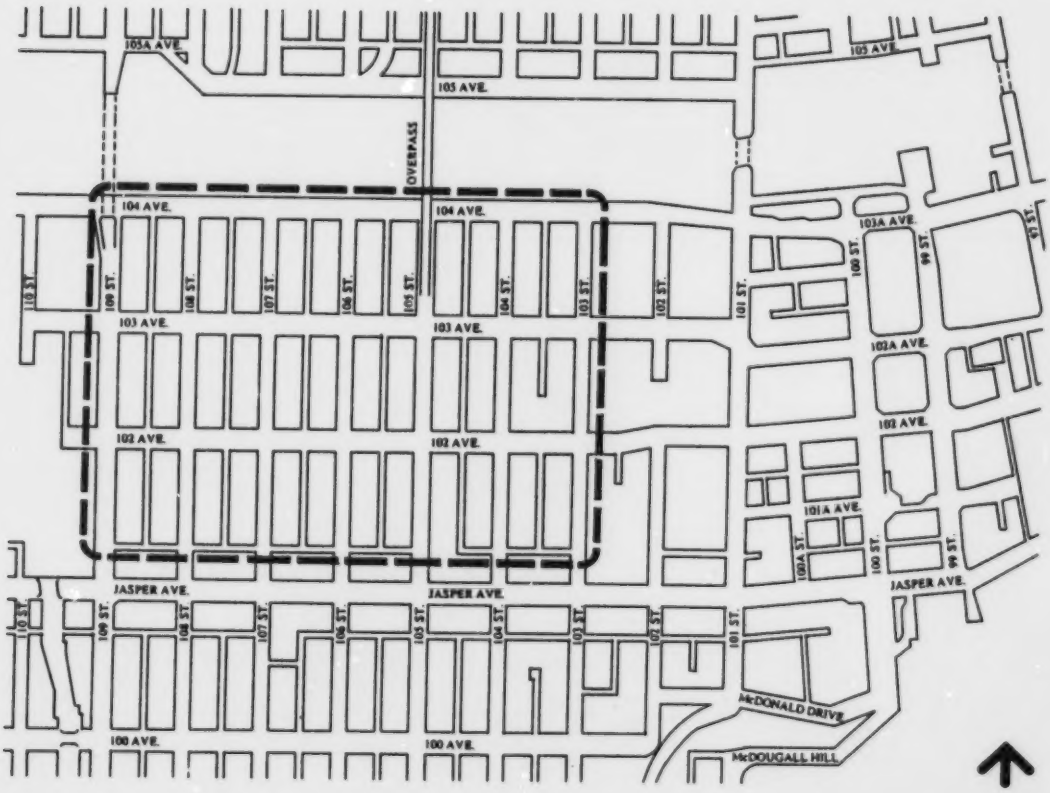

Figure 1: The warehouse district study area in downtown Edmonton, Alberta.

1.3 Study Methodology

The study was structured to be divided into two phases. The tasks involved are outlined below:

Phase I: Analysis

a) Review the experience of other Canadian cities respecting conversion of warehousing to residential use with a view to identifying the circumstances of conversion and techniques and approaches used to stimulate the projects.
b) Analyze the factors which would influence residential development in the warehouse district of downtown Edmonton.
c) Examine all relevant existing public policy within the City of Edmonton that has potential impact on residential redevelopment of warehousing in downtown Edmonton.
d) Analyze the Edmonton housing market and determine the target market for warehouse conversion to a residential project in the downtown, including preferred type of tenure, key project attributes and effective unit pricing.
e) Scope project costs and review potential sources of funding.
f) Identify and interview prospective project sponsors, participants and building owners.
g) Analyze all of the above and develop conclusions, criteria for building selection and a concept plan for development of the warehouse area.

Phase II: Site Selection and Feasibility

a) Examine attributes of buildings in the warehouse district of downtown Edmonton and select a sample of buildings for detailed analysis using criteria identified in Phase I.
b) Undertake a visual inspection of structural, mechanical and electrical attributes and assess the buildings' adaptive reuse potential for residential conversion.
c) Analyze the foregoing and priorize the buildings according to their suitability and availability for residential conversion, emphasizing owner interest in the short term.
d) Select the most promising building for near term conversion and examine prospective layouts, building code requirements, structural, mechanical and electrical aspects, planning requirements and such other physical considerations as may be pertinent to a conversion decision.
e) Prepare detailed cost estimates with elemental breakdowns.
f) Prepare a financial analysis of the specific adaptive reuse project including land and building costs, construction costs, soft costs, financing potential in relation to prospective revenues, cash requirements, returns and any deficiencies.
g) Examine alternate approaches and sources of financing.
h) Assess overall project feasibility.
i) Outline requirements and processes to facilitate development and a plan for proceeding with a warehouse residential conversion project.

1.4 Report Organization

The report is organized substantially as a reflection of the study structure. It begins with an examination of loft conversions undertaken in other cities in western Canada. These are documented in Section Two.

In Section Three, the Edmonton market is examined. Because of a total lack of comparable Edmonton projects to examine, interviews of interested potential purchasers by means of focus group sessions were utilized to get a reading of the market.

Next, external influences on the project were addressed. Those that form the physical context of a project are documented in Section Four, while public policy influences are recorded in Section Five.

Section Six examines nine prospective buildings, from which one was selected for detailed study. Its condition and character, the influence of building codes, and the proposed form of redevelopment are reported in Section Seven.

The next section addresses financial aspects of the study. Firstly, costs of reconstruction or renovation are addressed, including project financing under the options available. Next, the estimated revenues to be generated from both the sale and rental of units is presented, based on documented revenues of closest comparables. Finally, conclusions are drawn as to the financial viability of developing both ownership and rental options.

The implementation of the concept is examined in Section Nine.

SECTION TWO

LOFT HOUSING IN WESTERN CANADIAN CITIES

2.1 550 Beatty Street, Vancouver, B. C.

To date in Edmonton, there have not been any conversions of old warehouse buildings into loft residential units. To gain a better understanding of this rather rare (in Canada at least) development concept, several loft residential projects in other western Canadian cities were studied by the consultants.

Located one block north of the B.C. Place Stadium in downtown Vancouver, 550 Beatty Street was the first upscale warehouse conversion project completed in Vancouver. During good weather at least, residents of 550 Beatty Street can walk to most of the major office buildings in downtown Vancouver, as well as to a number of nearby cultural/recreational facilities such as the Queen Elizabeth Theatre and the Playhouse Theatre. The Stadium LRT station is only a half block away.

The building was completely renovated in 1982 and consists of three levels of commercial space (the ground floor and basement accessed from Beatty Street and a sub basement accessed from a rear lane) and five floors of residential units. The 10,000 square feet of commercial space was marketed on a strata title basis; tenants include an English language school for foreigners, a sound studio and a "packaged office" operation.

The upper five floors contain 31 condominium apartment units. The units range in size from 1,001 square feet on a single level to 2,053 square feet on three levels. The top floor units have their own private roof top patios; the lower floor units share a common roof deck.

There is no parking in the building. A two level parkade on the opposite side of the street contains 33 parking stalls; the two "extra" spaces are controlled by the strata corporation and rented on a yearly basis to the highest bidder.

Figure 2: 550 Beatty Street, Vancouver, B.C.

The units were originally priced at approximately $150 per square foot. Unfortunately for the developer, numerous construction problems delayed completion of the project, which came onstream at a time when the Vancouver housing market was in a severe recession As a result, the developer was only able to sell 13 units, many of them at far less than the original asking price. The project was foreclosed by the lender, who proceeded to rent the unsold units.

In 1987, the lender marketed the 18 unsold units (most of them rented) via a public auction at prices ranging between $90-$100 per square foot. To put this price level into perspective, the most recent sale at 550 Beatty Street occured in February of 1990 when a 2,005 square foot unit on the top floor sold for $400,000 ($199 per square foot).

In order to get some idea as to the probable customer profile for a loft residential project in Edmonton, and in order to determine the positives and negatives of the project, a telephone survey of 550 Beatty Street residents was undertaken by the consultant. Of the 31 units in the building, nine are currently rented. Of the 22 owner occupants, five could not be reached.

The 17 owner/occupants interviewed by the consultant were asked to provide some demographic information as well as general comments about the building. The results of these interviews are summarized below:

Age:	20-29	(2)
	30-39	(6)
	40-49	(3)
	50-59	(4)
	60 +	(2)

Using the midpoint of each range, the average homeowner age at 550 Beatty Street is 37.

Household size:	One person	(4)
	Two persons	(11)
	three persons	(2)

The predominance of two person households probably reflects the large size of most units in the project. The three person households were a couple with a teenage son and a couple with a two year old daughter.

In terms of their occupation, most of the persons interviewed could be classified as "creative professionals". Occupations noted included several self employed businessmen, a university professor, a jewellery designer, an environmental consultant, an accountant, an architect, a film producer, a stock broker, a musician, and a librarian. One person was retired.

Work downtown	Yes	(10)
	No	(7)

Half of the persons who work downtown indicated that they usually walk to their place of employment.

Previous residence:	Owned a house	(6)
	Owned a townhouse	(2)
	Owned an apartment	(2)
	Rented an apartment	(7)

Thirteen of the people interviewed said that proximity to the LRT station was a positive feature. Several persons indicated that good access to the LRT allowed them to get rid of their second car.

As noted above, each apartment has only one parking space. Four of the people interviewed said this was a problem since they had two cars; two persons did not have a car and rented their stalls to neighbours.

Almost everyone was very pleased with the project in general and their unit in particular. Minor concerns raised by one or more persons included:

- the poor design of the roof deck (too boxed in by the private roof top patios of the penthouse units);
- units are a bit dark (windows at the front of each suite only);
- conflicts with the commercial tenants (eg. courier traffic, late night operations); and
- lack of parking.

On balance, these minor concerns were more than offset by the attractions of the loft style space itself and the desirability of living downtown.

2.2 41 Alexander Street, Vancouver, B. C.

Partly because of the financial disaster at 550 Beatty Street, the next Vancouver conversion of an old industrial building into upscale condominium loft housing units did not occur until 1990. This second project is located at 41 Alexander Street in downtown Vancouver, a half block east of Gastown.

Like their counterparts at 550 Beatty Street, residents of 41 Alexander Street can walk to many of the major office buildings in downtown Vancouver, as well as to a number of retail/restaurant facilities in the Gastown area. The Seabus and Waterfront LRT stations are four blocks away — a reasonable walking distance on nice days.

The building, which dates from 1910, was extensively renovated for occupancy in January of 1991. It provides two levels of parking (basement and ground floor) and six floors of residential units. Because of its mid-block location, the building has windows at the front and back only. The front (south facing) windows look over the street to a number of older buildings. The back (north facing) windows have nice views over a small park, Burrard Inlet and the North Shore mountains.

Partly because of the interior design limitations imposed by the limited amount of windows, the developer originally planned to offer a number of half floor units with both north and south facing exposures. It soon became apparent, however, that the large size of these units (about 1,700 square feet) made them too expensive for most prospective purchasers. As a result, the typical floor has been subdivided into four suites rather than two. These more compact (and more affordable) units range in size from 722 to 1,008 square feet.

The top floor has two penthouse units (1,799 and 1,644 square feet) which have spiral staircases up to private roof top patios. The lower floor units share a common roof deck.

Figure 3: 41 Alexander Street, Vancouver, B.C.

The project has 19 units, of which 17 had been sold by the end of 1990. The average selling price to date is approximately $165 per square foot.

It must be emphasized that this price is for a bare shell — a concrete floor, exposed brick walls and an open ceiling. Utility lines (gas, water, etc.) are "stubbed" into units. The owner has complete freedom in demising the space, although the locations of the utility lines suggest a most economical location for the bathroom and the kitchen. According to the developer, most purchasers are spending $40-$60 per square foot to finish their units.

There are 16 parking spaces on the main floor and in the basement; the basement parking spaces are less desirable because the elevator stops at the main floor.

Although the limited amount of on site parking has not been a major problem from a marketing stand-point, there is no doubt that some prospective purchasers have rejected the project because of the one stall per unit limit. Given the suite sizes, the typical buyer is a single person/single car household. Two of the buyers so far have not required a parking stall — one does not have a car and one leaves his car at work.

The demographic profile of the 17 purchasers is as follows:

Age:	20-29	(2)
	30-39	(10)
	40-49	(4)
	50-59	(1)
	60+	(0)

Using the midpoint of each range, the average homeowner at 41 Alexander Street is 37 years old.

Household Size:	One person	(9)
	Two persons	(8)
	Three persons	(0)

The greater proportion of one person households at 41 Alexander as compared to 550 Beatty probably reflects the considerable difference in the average unit size.

In terms of their occupation, most of the purchasers could once again be classified as "creative professionals". Occupations noted included an artist, a stockbroker, a photographer, a publisher, a fashion magazine editor, a film producer, a hairdresser and a teacher. One person was retired.

Previous residence:	Owned a house	(4)
	Owned a townhouse	(1)
	Rented a townhouse	(1)
	Owned an apartment	(7)
	Rented an apartment	(4)

Since the buyers are just starting to move into the building, they are not yet able to comment on the positive and negative attributes of the project.

2.3 The Ashdown Warehouse, Winnipeg, Manitoba

The Ashdown Warehouse is located at 167 Bannatyne Avenue in the heart of the historic Exchange District in downtown Winnipeg. By virtue of its location only two blocks from the corner of Portage and Main, residents of the Ashdown Warehouse can walk to most of the major office buildings in downtown Winnipeg, as well as to a number of nearby cultural/recreational facilities such as the Playhouse Theatre, the Centennial Theatre and Stephen Juba Park.

The turn of the century building was completely renovated in 1988 and consists of commercial space on the ground floor and five floors of residential units. The 30,000 square feet of commercial space was retained by the developer and has been leased to a number of tenants including a restaurant, a lunchtime deli, a skin care clinic and the Royal Canadian Legion (ie. a tavern).

The Legion was a tenant in the building prior to the renovation. According to the marketing agent for the project, the Legion lease will probably not be extended when it comes up for renewal in 1993. Instead, the developer may combine these premises with an adjoining 5,400 square feet of presently unleased space in order to accommodate a large sports club. This recreation facility would cater to downtown office employees as well as to residents of the Ashdown Warehouse.

The upper five floors contain 100 condominium apartment units. The units range in size from a 911 square foot one bedroom to a 1,773 square foot two bedroom. The location of the massive wood structural columns, the spacing of the windows and the depth of the building made it impossible to provide one and two bedroom suites similar in size to those found in most modern apartment projects (ie. 600-800 square feet for a one bedroom unit and 900-1,200 square feet for a two bedroom unit).

Figure 4: The Ashdown Warehouse, Winnipeg, Manitoba.

The developer was going to provide a roof deck for the Ashdown Warehouse, however, the City of Winnipeg insisted that this area be made accessible to handicapped persons. Given the cost of providing elevator service to the roof top level, the developer decided to abandon this component of the project.

There are 60 underground parking stalls in the building. Another 60 stalls are located in a two level parkade across the street. According to the marketing agent for the project, only four or five of the original buyers did not own a car.

The first twenty purchasers were given a "free" underground parking stall. Subsequent purchasers had the choice of an underground parking stall for $10,000 or a parkade stall for $7,500. All of the underground parking spaces are now sold.

The limited amount of underground parking has proven to be a definite drawback from a marketing stand-point. To a lesser extent, residents have also expressed concerns about the lack of on-site visitor parking.Most of the units were originally priced between $70,000 and $140,000 (ie. approximately $80 per square foot), plus parking. Current listings of fourteen units for sale through the multiple listing service of the Winnipeg Real Estate Board have an average asking price of $80 per square foot, which suggests that values have not appreciated at all (and in fact may have declined slightly taking into account the parking) since the Ashdown Warehouse came on the market in the summer of 1988.

Even at these affordable prices, the project has experienced a very long absorption rate; two and a half years after completion, the developers still own twelve units. It would be reasonable to assume that a significant portion of the developer's profits on the Ashdown Warehouse project will not be realized until these last twelve units are sold.

In retrospect, there is no doubt that a 100 unit loft housing project was far too large for the

Figure 5: The interior of a suite in the Ashdown Building.

Winnipeg market. This lesson cannot be ignored in Edmonton,even though its market is somewhat larger (1990 metro area population of 818,000 as compared to 647,000 for Winnipeg) and growing more rapidly (between 1986 and 1990, the population growth rate averaged 1.0% per annum in Edmonton versus only 0.8% per annum in Winnipeg).

Because of low real estate prices generally in the Winnipeg market, the Ashdown Warehouse conversion would not have been undertaken had it not been for substantial financial assistance provided by the public sector. First and foremost in this regard was a $1.5 million grant (ie. the equivalent of $15,000 per unit) from the Winnipeg Core Area Initiative — a tri level government program created to accelerate the process of economic rejuvenation in the downtown area of the city.

This large cash infusion was supplemented by two much more modest government subsidies — property tax concessions by the city of Winnipeg and a short term loan subsidy from the Province of Manitoba. The Province's financial assistance was made when the Ashdown Warehouse was going to be marketed on a rental basis; when the developers subsequently changed their mind and proceeded to sell the units, the Province's offer was never revoked.

Neither the marketing agent for the Ashdown Warehouse nor the manager of the Winnipeg Core Area Initiative is aware of any plans for another such project in the downtown core. This lack of a "follow up" project suggests that converting historic warehouse space to loft housing is not financially feasible in downtown Winnipeg at the present time without government subsidies.

According to the original marketing agent for the project, there were two distinct buyer profiles for the Ashdown Warehouse: single professionals between the ages of 25-40 working in the downtown (many of them first time home buyers) and empty nester couples in the 50-70 age group.

2.4 Other Examples

2.4.1 Castle Hotel, Lethbridge, Alberta

The three storey Castle Hotel in downtown Lethbridge, Alberta was built in 1906. Several years ago, it was condemned by the City as a fire hazard. The brick exterior building was purchased and converted into 40 dwelling units by a local developer in 1988. It is therefore technically a residential retrofit rather than a loft warehouse conversion.

Given the extremely limited demand for condominium and "high end" rental apartment units in Lethbridge at the time, the project was marketed as a low income housing development. In return for a fifteen year forgivable loan from CMHC, funded under the discontinued Residential Rehabilitation Assistance Program (RRAP), the developer agreed to keep rental rates substantially below market (up to 50%) for the duration of the loan period.

The units are very small, ranging in size from a 208 square foot studio to a 379 square foot one bedroom. Partly because of the small size, tenant turnover in the project is higher than that of most apartment buildings. Nevertheless, the owner reports a waiting list for the project, probably because rents are only $225 per month for the studios and $250 per month for the one bedroom units.

Renovation costs for the 12,000 square foot building amounted to $846,000 ($72 per square foot) excluding the cost of land. The renovation programme included replacing all the windows, the roof, small portions of the wood floors and upgrading the basement from storage to living space. The building does not have an elevator and there is no on-site parking (tenants can park for as long as they want at no cost on nearby streets).

Given the unit design and target market of this project, and given the level of government financial assistance required, the Lethbridge experience is not considered very relevant for a loft residential development in the Edmonton warehouse district.

2.4.2 Balfour Apartments, Regina, Saskatchewan

The Balfour Apartments is one of the oldest and best known residential rental projects in downtown Regina. Three years ago, a local developer converted the Balfour Apartments into a strata title project and has been upgrading and selling units as market conditions permit. Like the Castle Hotel project, it is thus not a loft warehouse conversion.

The east wing of the project has 30 units ranging in size from a 650 square foot one bedroom to a 1,700 square foot three bedroom. Only 22 units have been sold, at prices ranging between $80-100 per square foot. The west wing of the project has 42 units, all of which are rented at the present time. Rents for a one bedroom apartment currently range between $450-500 per month.

The Balfour Apartments do not have any on site parking, and this has been a major stumbling block in selling units. The very low absorption rate and low selling prices reflect the very small size of the empty nester market in Regina as well as the cost of buying alternate forms of accommodation.

SECTION THREE

THE EDMONTON MARKET

3.1 Comparable Projects

To date in Edmonton, there have not been any conversions of old warehouse buildings into loft residential units. The closest comparables would be either older apartment buildings in the downtown area, none of which have been renovated to current standards, or newer buildings built with some of the character that attracts people to the older buildings. One example of the latter is LeMarchand Tower, at 11503-100 Avenue in the Oliver area immediately west of the downtown. It is a relatively new apartment building built in the late '70's in conjunction with the redevelopment of the adjacent original LeMarchand Mansion for commercial/office uses. However, aside from the relationship with the older building, it is a relatively contemporary apartment building. Another project that has some of the unique qualities that attract people to loft housing, such as high spaces, is The Galleria, located at 99 Avenue and 114 Street and built in the early '80's. However, it also is not a good comparable to loft housing.

This lack of precedents in the Edmonton area makes it rather difficult to assess the market feasibility of a loft residential project. The means of overcoming this problem in determining the size and character of the market was a series of "focus group" interview sessions with prospective loft residential buyers, conducted by the consultants. The approach and conclusions are outlined on the following pages.

Figure 6: LeMarchand Tower and Mansion, Edmonton, Alberta.

3.2 Market Methodology and Demographics

3.2.1 Survey Methodology

It was decided at the outset that the focus group sessions should be geared towards potential purchasers rather than renters. This bias in favour of purchasers follows from the assumption that a condominium project is more likely to be financially feasible than a rental project (in a later section of the report, this is confirmed).

With this in mind, a small advertisement was placed in the Homes Section of the Edmonton Journal on two successive Saturdays in November of 1990 (see below). This ad was supplemented by a "feature article", also in the Edmonton Journal, which described the loft housing concept and which included several photographs of the Ashdown Warehouse project in Winnipeg.

People wanting to obtain additional information were asked to call the offices of Cory Cunningham Architect Ltd. Those persons who did so were asked to provide a brief demographic profile, as follows:

- did they currently own or rent;
- did they live in a single family house, a townhouse or an apartment;
- number of persons living at home (ie. household size);
- occupation;
- age group;
- sex;
- home postal code.

Those persons who agreed to provide this information were invited to attend one of five meetings with the consultants in December, 1990 and January, 1991 to review the proposed loft housing project and provide building design guidance to the architect.

NEW YORK STYLE LOFT HOUSING
• Complete Renovation
• Historic Building
• Condominium Units
• Downtown Location
• Sandblasted Brick Walls
For information call Janette at 420 6680 Mon.-Fri. between 9-12 or 1-4.

Figure 7: The advertisement that appeared in the Edmonton Journal regarding loft housing.

3.2.2 Buyer Demographic Profile

A total of seventy persons agreed to provide the demographic profile information, most of which is summarized in point form below. The full list is presented in Appendix A.

Housing type and tenure:	Own a house	18	(26%)
	Rent a house	7	(10%)
	Own a townhouse	6	(9%)
	Rent a townhouse	2	(3%)
	Own an apartment	8	(11%)
	Rent an apartment	29	(41%)

Of the seventy respondents, 46% currently own their residence. While homeowners are certainly more likely prospects to buy a loft housing unit than renters, the experience at 550 Beatty Street and 41 Alexander Street indicates that apartment renters in particular comprise a significant portion of the target market.

Household size:	1 person	23	(33%)
	2 persons	32	(46%)
	3 persons	10	(14%)
	4 persons	5	(7%)

The household size of the seventy respondents averages 1.96 persons. The predominance of one and two person households (79%) is typical of existing loft housing projects in Vancouver and Winnipeg.

Age group:	20-29	24	(34%)
	30-39	24	(34%)
	40-49	18	(26%)
	50-59	3	(5%)
	60+	1	(1%)

Based on the midpoint of each range, the average respondent is 35 years old. To put this figure into perspective, the average age of homeowners at 550 Beatty Street and 41 Alexander Street is 37 years.

Sex:	Male	38	(54%)
	Female	32	(46%)

Although the seventy respondents held a wide variety of jobs, the majority could fairly be described as white collar professionals. Appendix A provides the occupation and demographic profile for each one of the seventy respondents.

To see if prospective purchasers tended to live in any particular neighbourhoods of the city, respondents were asked to indicate their home postal code. The most frequently mentioned postal codes were:

—	T5K (which includes most of Oliver)	17 responses	(26%)
—	T5N (which includes most of Glenora)	6 responses	(9%)
—	T5H (the area north and east of downtown)	5 responses	(8%)
—	T6E (which includes parts of Strathcona)	5 responses	(8%)
—	T5J (the downtown core)	4 responses	(6%)

Allowing for the fact that four persons did not know their postal code, these five inner city neighbourhoods accounted for 57% of all responses. The base map on this page shows the geographic extent of these five postal code zones.

This buyer profile is consistent with findings in other cities. The primary market for downtown housing is the younger single or two person professional household. They find the excitement of living in a downtown with a nearby concentration of entertainment and recreation facilities appealing, and they like the convenience of being able to walk to work. Another large and growing segment of the market for downtown housing is composed of empty nesters — couples between 45 and 60 years of age. This market segment is growing rapidly in other cities[1] and responses in Edmonton similarly indicated a strong interest from this group.

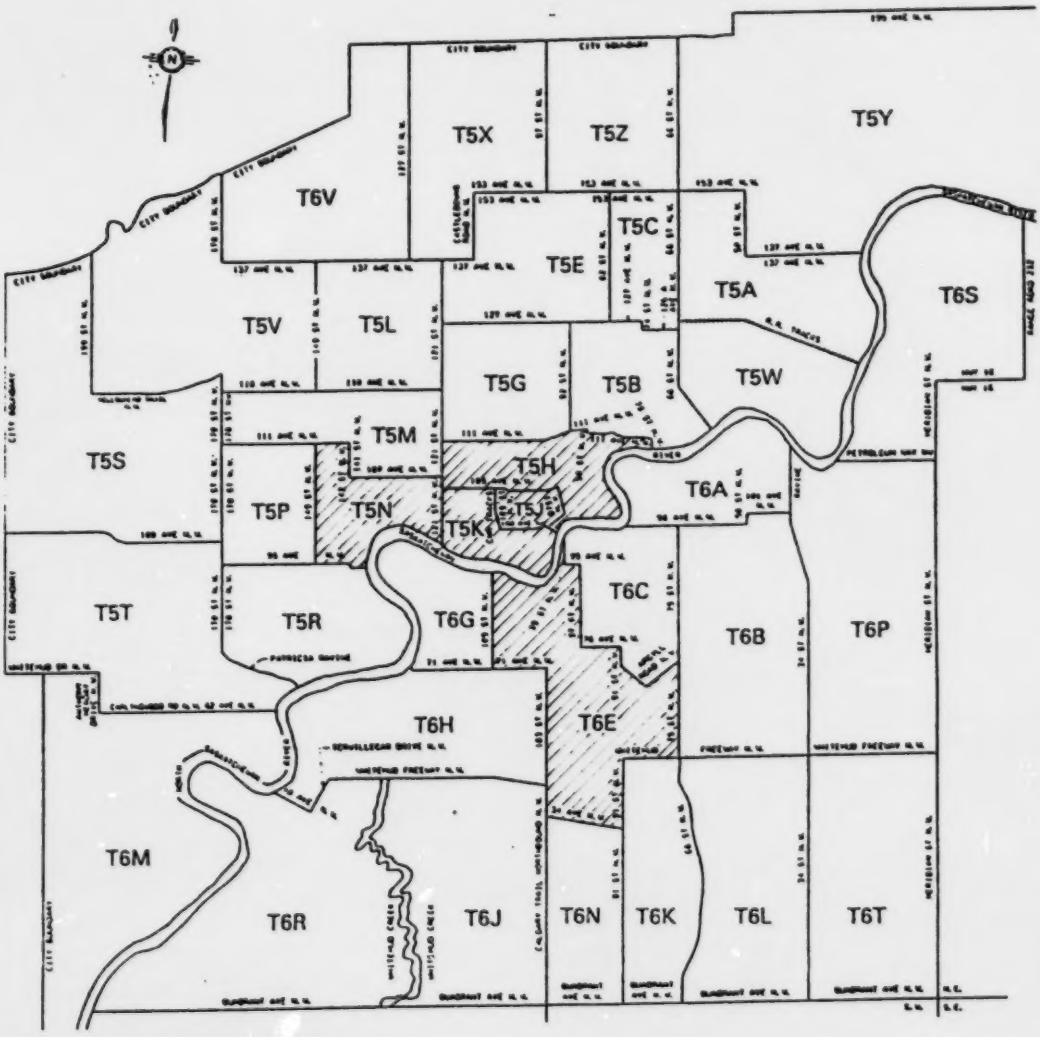

Figure 8: Edmonton postal code zones.

1 M. Leanne Lachman and Robert Miller, Downtown Housing: Where the Action Is, The Journal of Real Estate Development, Vol. No. 1, Issue No. 1, summer 1985.

3.3 Focus Group Preferences

Of the seventy persons who provided the above noted information over the telephone, approximately fifty attended one of the informal focus interview sessions held in the offices of Cory Cunningham Architect Ltd. during the month of December, 1990. A total of five meetings were held; groups of 8-12 people were the norm.

During these sessions, which typically lasted about 90 minutes, prospective purchasers were asked to comment on a wide variety of building and unit design features as well as a range of related marketing issues. A summary of the discussions on these various topics is presented below.

3.3.1 Area Characteristics

Following a brief description of the warehouse district by the consultants, people were asked to comment on the positive and negative aspects of the area. A significant number (40-50%) mentioned the advantage of being able to walk to work and to other amenities in the downtown core (shopping, theatre, parks).

Concerns were expressed by a number of people regarding traffic noise, traffic pollution (eg. diesel buses), the uncertain level of personal security in the area (particularly at night), and the location of certain undesirable land uses (eg. firehall, nightclubs, liquor store).

In light of these comments, preference should be given to buildings which are not located on arterial streets (104 Avenue or 109 Street), and which are not located next door to a conflicting land use. Other things being equal, preference should also be given to buildings more proximate to the downtown core (those located to the east of 106 Street).

3.3.2 Exterior Building Appearance

People were shown photographs of the exterior of several buildings in the warehouse district and asked to comment on the importance of the outside appearance. A significant majority of people (60-70%) indicated a strong preference for a "traditional" brick exterior. A strong preference was also noted for corner buildings as opposed to mid block buildings since the former can have a lot more windows (ie. brighter interiors).

Figure 9: A group of "traditional" brick buildings as compared to a more contemporary building.

3.3.3 On Site Parking

The consultants briefly described the parking arrangements for the Ashdown Warehouse in Winnipeg and the 550 Beatty and 41 Alexander Street projects in Vancouver. Prospective purchasers were informed that a loft housing development in the Edmonton warehouse district would probably provide one underground parking stall per unit.

For a significant majority of people (60-70%), one parking stall per unit did not pose a problem. A few people (5-10%) either did not have a car or would sell it if they moved downtown, in which case they would be prepared to rent their stall to someone who required an extra space.

Of those persons who required a second stall (20-30%), most were prepared to pay for additional on site parking (a cost of $10,000 was mentioned by the consultants). For a few, parking their second car nearby in a commercial parkade (eg. the Revillon Parkade on the west side of 104 Street just south of 103 Avenue) was an acceptable option.

Based on the results of this discussion, a parking standard of one stall for each lower level suite and two stalls for each penthouse suite will be acceptable from a marketing standpoint. This parking must be provided either in the basement of the building itself or in an adjoining enclosed parkade.

Given the cost of providing on-site parking, prospective purchasers were told that guest parking in the building would probably be non-existent. Very few people (5-10%) indicated that lack of guest parking would be a major concern. The vast majority felt that this situation was to be expected in a location on the edge of the downtown core, and that guests could either park on the street or in nearby public parking lots.

3.3.4 Proximity To LRT

Very few people (10-20%) felt that a location with good access to the LRT was a significant benefit at the present time. Most people used the LRT rarely or not at all "because it doesn't go anywhere useful". Most people agreed that the extension of the LRT line to the University area in 1992 would make the transit system somewhat more attractive.

In the long run, proximity to an LRT station will certainly be an asset. However, this locational characteristic is not expected to have any noticeable impact on the selling price of units in a loft housing project until the latter half of this decade at the earliest.

Most people indicated that they would walk three or four blocks to an LRT station. Taken in conjunction with the comments noted above, this suggests that buildings situated within a block of an LRT station (eg. the Great West Saddlery at 10137 - 104 Street) have no significant public transit related marketing advantage over buildings located further to the north.

3.3.5 Ground Floor Units

In light of concerns raised by several people regarding a lack of security in the area at night, prospective purchasers were asked if they would consider buying a unit on the ground floor of a building. Perhaps 20-30% (most of them women) indicated that they would not do so under any circumstances.

The ground floor of most of the old warehouse buildings under consideration is typically

3-4 feet above street level, with ground floor window sills often about 6 feet above grade (see Figure 9). When this difference in elevation was pointed out by the consultants, a number of people indicated that they would consider buying a ground floor unit provided that these less desirable suites were sold at a discount and were provided with some additional security (eg. iron bars across the windows).

Several of the buildings under consideration occupy long and narrow lots (50 feet wide by 150 feet deep) which are located adjacent to a vacant property of a similar size. This vacant property may have to be acquired to provide sufficient on site parking. If all of this parking is provided below grade (the optimal design solution), some of the ground floor units could have private gardens. A number of persons were very taken by this idea and indicated that a ground floor unit would even be their first choice in this instance, but provided, of course, that security issues were properly addressed.

The principal conclusion to be drawn from this discussion is that the ground floor of an old building in the warehouse district can be converted into residential units. Since the alternative — a mixed use project with office or retail/service commercial tenants on the ground floor and residential units above — is less desirable from a market and probably a financial standpoint, this finding is most encouraging.

3.3.6 Lofts

A significant number of people (60-70%) felt that a high ceiling with the potential for a mezzanine loft in a unit was a particularly attractive interior design feature. This suggests that preference should be given to buildings with a ceiling height which is high enough to accommodate a loft (minimum of 14+ feet from the floor to the underside of beams).

3.3.7 Elevator

At 550 Beatty Street and 41 Alexander Street, one of the major renovation costs involved replacing the old freight elevator and stairwell at the rear of the building. A new elevator/stairwell core had to be added near the centre of the buildings in order to meet Vancouver's stringent seismic code requirements. Since seismic upgrading is not a problem in Edmonton, it may be possible to retain the old freight elevator in certain buildings.

There was virtually unanimous support at the focus group sessions in favour of retaining an old freight elevator as opposed to installing a brand new lift, since it was felt that this would add a great deal to the historic character and charm of a loft housing project. It was mentioned that the freight elevators were often located at the rear of the building, but this was not seen as a deterrent.

Retaining an old freight elevator will certainly raise a number of problems with respect to complying with current building codes. Nonetheless, retaining an existing freight elevator will probably reduce renovation costs, compared to completely replacing it. Passing these costs savings on to buyers in the form of reduced prices will probably broaden the market for a loft housing project.

3.3.8 Balconies and Roof Decks

In their opening remarks at each focus group session, the consultants indicated that the loft housing projects developed to date in Vancouver and Winnipeg do not have private balconies. The consultants suggested that adding a balcony for each unit would

significantly alter the external facade of a building and, quite possibly, detract from its historic appearance.

As an alternative to individual balconies (which a number of people felt to be not particularly useful given the very urban setting of the buildings in question), the consultants described the 550 Beatty Street/41 Alexander Street option — namely private roof top patios for the penthouse units and a common outdoor or roof deck for the lower level units.

This design option met with universal approval. Alternatives such as "recessed balconies" similar to those at 550 Beatty Street or replacing one window in each unit with a floor to ceiling opening door and some type of decorative safety railing were mentioned by the consultants but elicited only minor interest.

3.3.9 Recreation Facilities

Potential purchasers were asked if they wanted any recreational facilities in the building (a hot tub on the roof deck or a tennis court on top of an adjoining parkade were two possibilities mentioned by the consultants). Virtually no one expressed any interest in these suggestions.

3.3.10 Fireplaces

Prospective purchasers were asked if they would pay extra (probably about $3,000) to have a fireplace in their unit. A significant majority (70-80%) said they would.

Opinions with respect to the type of fireplace were fairly evenly split; roughly one third were strongly in favour of wood burning fireplaces (more in keeping with the historic character of the building), another third were strongly in favour of gas fireplaces (cheaper and easier to operate, and no problems with wood storage), and the final third expressed no strong preference one way or another.

3.3.11 Air Conditioning

Partly because of concerns raised with respect to traffic noise and air pollution in the downtown area, some people asked whether the units would have some type of central air conditioning system. The consultants indicated that this was unlikely, given the cost of installation and the small number of units involved.

Although a few people (10-20%) indicated that they would pay a premium for air conditioning, no one said they would not buy a unit because it did not have air conditioning. Given the relatively small size of most of the historic buildings in the warehouse district, the cost of installing some type of central air conditioning system will probably outweigh the benefits.

3.3.12 Interior Finishes

During the course of each meeting, the consultants described two very different ways of marketing loft housing units: the "fully finished" approach used at 550 Beatty Street and at the Ashdown Warehouse, and the "bare shell" approach used at 41 Alexander Street.

In the first instance, the developer sold units which were no different from those in a conventional condominium project in the sense that the interior of the suites were completely finished. At 41 Alexander Street, on the other hand, the developer provided buyers with an unfinished volume of space (ie. a concrete slab floor, no bathrooms, no

kitchens and no interior walls). The job (and fun) of finishing the space is the sole responsibility of the buyer.

Potential purchasers were asked to choose from three marketing options:

- buying fully finished space;
- buying a bare shell which they would finish on their own with no assistance from the developer; or
- buying a semi-finished but habitable shell (bathroom and kitchen in place) which they would finish to their individual taste on their own.

Less than 10% of the individuals voted for the first option. In the minds of most prospective purchasers, one of the principal attractions of a loft housing project is the freedom to "do your own thing" inside the unit.

By the same token, however, most people were reluctant to tackle the entire interior finishing job themselves, either because they did not have the time or because they did not have enough expertise (or both). Probably 10-20% of the people interviewed voted for the second option.

The majority were in favour of the third option. Most of these people wanted the developer to complete the bathroom and kitchen areas as well as the floors (subject to discussions with the purchaser regarding the quality and cost of finishes). Most of these people felt more comfortable about finishing the remainder of the space at their leisure; many indicated a preference for some type of open plan (ie. a minimum of interior walls).

3.3.13 Unit Size

Near the end of each session, every one attending the meeting was asked to fill out a form indicating the amount of space they would like to have. Respondents were asked to indicate either the amount of square feet or the number of bedrooms/bathrooms desired. In categorizing the responses, it has been assumed that a one bedroom/1 bathroom unit equates to 600-800 square feet and that a 2 bedroom/2 bathroom unit equates to 1,000-1,200 square feet.

The responses to this question were as follows:

600 - 800 square feet	7%
800 - 1,00 square feet	26%
1,000 - 1,200 square feet	19%
1,200 - 1,500 square feet	36%
1,500 - 2,000 square feet	10%
2,000 - 2,500 square feet	2%

In discussing floor space "requirements" with prospective purchasers, it was apparent that a significant number (perhaps as many as 50%) were under the impression that loft warehouse space would be very cheap (eg. 1,000 square feet for $50,000). When they were informed that this was unfortunately not the case, some were obviously priced out of the market. Others, however, were prepared to scale down their floor space requirements in order to meet their own budget. This reality is reflected in most surveys where

"respondents will indicate a desire for a unit with two or more bedrooms, yet one bedroom remains the most popular unit in most downtown projects".[1]

For most people, a "sense of space" was an important factor in their decision to consider buying a loft housing unit. This suggests that the units in a warehouse conversion project should be a bit bigger than those found in a typical modern apartment building. This slightly larger floor area, combined with a higher than normal floor to ceiling height and a more open plan, should produce the illusion of a lot more space.

3.3.14 Unit Prices

Having identified the amount of space they desired, every one attending the meeting was then asked to indicate how much they were prepared to pay for their unit. Respondents were told to split their price into two components: one for buying the bare shell and one for finishing the space.

In terms of a budget for finishing the space, the consultants indicated that $15 per square foot was the realistic minimum required to make the unit habitable (ie. complete the bathroom and kitchen areas), that $25 per square foot would allow for a modest level of finishes throughout the unit, that $35 per square foot would allow for reasonably good quality finishes (such as wood floors), and that expenditures above this level would pay for luxury finishes (marble, etc.). With these suggestions in mind, responses were as follows:

$15 per square foot:	43%
$25 per square foot:	40%
$35 per square foot:	12%
over $35 per square foot:	5%

With respect to the price for the shell space, the consultants indicated that the cost was unknown but would probably range in the $100-$130 per square foot range depending upon the level of building upgrading required. As noted above, a significant number of persons (50% or so) hinted that this price range was beyond their expectations and their ability to pay. With this very important caveat in mind, the question regarding the appropriate price range for shell space was answered as follows:

less than $100 per square foot:	43%
$100 per square foot:	33%
$115 per square foot:	24%
$130 per square foot:	0%

These results should be interpreted with a great deal of caution, partly because of the fairly small sample size and partly because of the public format of the meetings. In our opinion, there are two very clear messages to be drawn from these results: firstly, that the luxury component of the loft housing market is very small, and secondly, that affordability will be the key to success for all but the penthouse floor of a loft housing project in the warehouse district.

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1. M. Leanne Lachman and Robert Miller, Downtown Housing: Where the Action Is, The Journal of Real Estate Development, Vol. No. 1, Issue No. 1, summer 1985.

3.4 Recommended Development Programme

Based on the results of the focus group interviews conducted by the consultants and the experience of loft housing projects in Vancouver and Winnipeg, a series of recommendations are set out for a loft housing project in Edmonton's warehouse district.

3.4.1 Project Size

The Ashdown Warehouse in Winnipeg has 100 units. The 550 Beatty Street and 41 Alexander Street projects in Vancouver have 31 and 19 units respectively.

In retrospect, the evidence strongly suggests that the Ashdown Warehouse project was much too big for the Winnipeg market. This is the principal reason why the developer still has units for sale more that two years after completion of the project and why current asking prices for resale units are in some instances below original purchase prices.

A warehouse conversion project in Edmonton should be big enough to demonstrate the feasibility of the concept and yet small enough to achieve the highest possible selling prices and the shortest possible absorption period. Given the size of the Edmonton market and the results of the focus group meetings, we believe that the optimal size ranges between 20-30 units.

A building with less than 20 units will have difficulty providing the historic character so important to the success of a warehouse conversion project. A building with more than 30 units runs the risk of having to discount prices in order to sell out within a reasonable period of time.

3.4.2 Unit Size and Unit Mix

The results of the focus group interviews indicated quite clearly that the luxury component of the loft housing market is very small and that affordability will be the key to success for all but the penthouse floor of the development. The recent experience at 41 Alexander Street in Vancouver supports these conclusions.

Accordingly, we would recommend that one bedroom suites should be the typical floor plan in a loft housing project. These one bedroom suites should range in size from 700-800 square feet — a bit larger than a comparable unit in most modern apartment buildings but not so big as to create affordability problems. On a typical floor in a warehouse conversion project, one bedroom suites should account for 80% of the total units. The remaining 20% of the units should be two bedroom suites in the 1,000-1,100 square foot range.

The top floor of the building should have a maximum of four penthouse units of between 1,500-1,800 square feet. These penthouses must be corner units. Ideally, the penthouses will occupy the entire top floor of the building (ie. a building with a net floor area of between 6,000-7,000 square feet would be best).

To maximize their marketing appeal (and their selling price), each penthouse unit should have a private roof top patio. As well, an outdoor area for the common use of other occupants should be provided, either at grade or on a roof deck. The results of the focus group interviews indicated that an attractively landscaped roof deck would be a definite amenity for a warehouse conversion project — an amenity which would more than offset the lack of "conventional" balconies in the building.

If the building selected is long and narrow with an adjoining parcel of vacant land, serious consideration should be given to providing as many of the ground floor units as possible with a small "patio garden". The results of the focus group interviews indicated that a properly designed patio garden would be a definite drawing card which would help overcome buyer resistance to ground floor units.

3.4.3 Parking

The experience of the warehouse conversion projects in Winnipeg and Vancouver, reinforced by the results of the focus group meetings in Edmonton, leads to two important conclusions with respect to the amount and type of parking that should be provided:

- most prospective purchasers are prepared to compromise somewhat on the amount of parking in order to live in a renovated old building located within walking distance of the downtown core, and
- off-site parking (eg. Ashdown Warehouse, 550 Beatty Street) is not nearly as attractive as parking under the building itself.

In light of these conclusions, we would recommend that a warehouse conversion project provide a parking ratio of one stall for every one and two bedroom unit and two stalls for each penthouse. All of this parking should be provided "on-site" (ideally on the basement level with elevator access to the building lobby).

The amount of parking that can be provided in the basement of an old warehouse will be determined in part by the spacing of the structural columns (which are costly to move) and in part by the location of the entry/exit ramp and the building core. Although these parameters are presently unknown, experience suggests that the conversion of basement storage space into underground parking will be a fairly inefficient process (ie. that the average floor area per parking stall will be significantly greater than in a well designed modern building).

For this reason, it will probably be necessary either to expand the underground parking beyond the perimeter walls of the building itself onto an adjoining parcel of land, or to convert a portion of the ground floor of the building into parking (eg. 41 Alexander Street).

Depending upon the size and configuration of the site, it may be possible to provide slightly more than the minimum amount of on-site parking recommended above. Although the cost of building a few extra parking spaces will be substantial (probably at least $10,000 per stall), some of the prospective purchasers interviewed by the consultants — typically an empty nester professional couple looking for a two bedroom unit — indicated that they were prepared to pay for a second parking space. For example, at the Riverwind apartment project currently being marketed on Saskatchewan Drive, purchasers of units on all but the top three floors of each tower are paying $9,000 for a second parking stall. A similar (or even slightly higher) charge would be quite reasonable for a loft housing project, given its proximity to the downtown core.

Providing a few (three or four) extra parking spaces in a loft housing project should therefore be a break even proposition from a cost/revenue perspective. Given that the availability of a few extra parking spaces can be expected to accelerate the absorption rate of the project, the benefits should in fact outweigh the costs.

SECTION FOUR

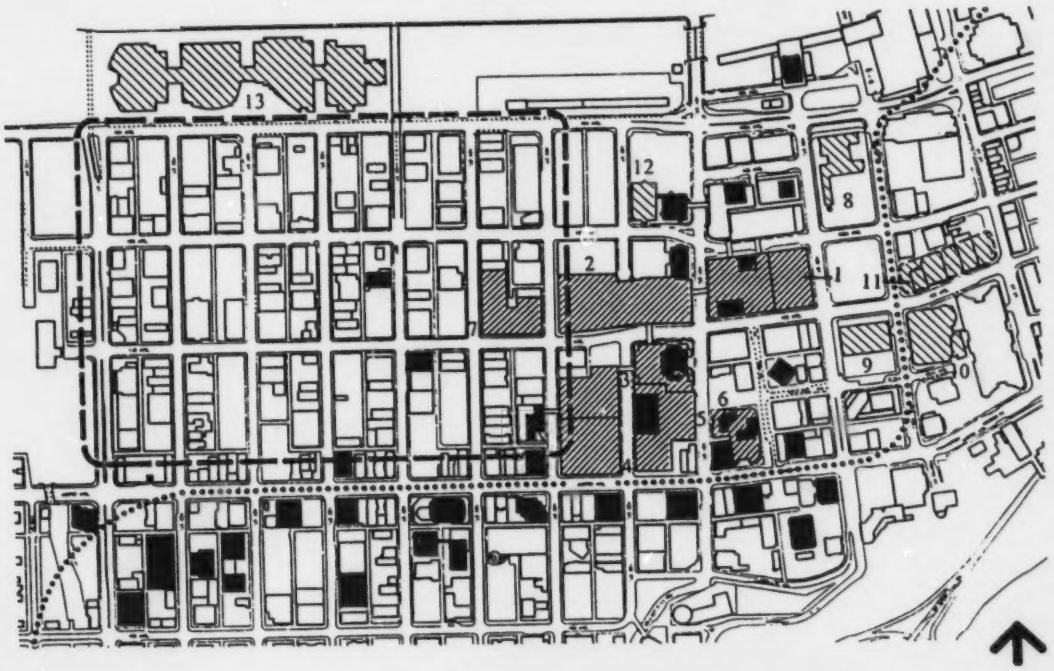
THE PHYSICAL CONTEXT

4.1 The Adjacent Core Area

What creates a residential downtown? Downtowns that provide a good environment for residential development generally share four characteristics:

- they have large white collar and professional work forces, as evidenced by substantial office development;
- they have a recent history of successful redevelopment, especially retail projects;
- they have a concentration of cultural institutions and entertainment activities; and
- they are geographically compact.

As the map below illustrates, the warehouse district abuts the northwestern corner of the downtown commercial core, extending as it does from 103 Street in the east to 109 Street in the west, and from 104 Avenue in the north to the lane north of Jasper Avenue in the south. It encompasses a total of 18 city blocks.



Retail: 1. Edmonton Centre, 2. Eaton Centre, 3. Manulife Place (Phases 1 & 2), 4. Hudson's Bay Centre, 5. City Centre, 6. Scotia Place, 7. Boardwalk Market

Civic, Cultural, Educational: 8. City Hall, 9. Centennial Library, 10. Citadel Theatre, 11. Proposed Concert Hall, 12. Centre Club, 13. Grant McEwan Community College

Office Towers

Figure 10: The study area and its surroundings.

4.1.1 Proximity to Employment

During good weather at least, the warehouse district lies within walking distance of the downtown commercial core. This central business district, in which the predominant building form is the high rise office tower, actually wraps around the eastern and southern borders of the warehouse district.

The central business district is by far the major employment node in the Edmonton Region. This downtown commercial core presently contains approximately 14.5 million square feet of office space. As noted in the plan, a significant portion of this office space is located within three blocks of the eastern and southern boundaries of the warehouse district, with much of this space having been built in the past decade.

The fact that thirty four major office buildings are located within three blocks of the warehouse district means that walking to work is a very real possibility for residents of a loft residential project. As the Edmonton Region continues to expand and as congestion and transportation costs continue to increase, being able to walk to work will become more and more attractive to more and more people.

4.1.2 Proximity to Retail Facilities

Residents of a loft residential project located in the warehouse district will also be able to walk to a number of major downtown shopping centres, all newly constructed or fully renovated in the past few years:

- the Edmonton Centre Mall, anchored by a Woodward's department store;
- the Eaton Centre Mall, anchored by an Eaton's department store;
- the Manulife Place (Phases I and II);
- the Hudson's Bay Centre; and
- the new City Centre project.

These fashion oriented malls, together with a number of retail/service commercial outlets located in adjoining mixed use projects (eg. Scotia Place) and street oriented shops, can satisfy the shopping requirements of most consumers, with the possible exception of "take home" food.

At the present time, the closest supermarkets with the convenience of free surface parking include a freestanding Safeway at the corner of 124 Street and 102 Avenue and Hull's at the corner of Jasper Avenue and 117 Street. Neither of these small "inner city" stores is particularly attractive. Fortunately, CN Real Estate are planning to build an 85,000 square foot neighbourhood shopping centre anchored by a 51,000 square foot Safeway store at the northeast corner of 104 Avenue and 116 Street. When this commercial development comes onstream in 1992, residents of a loft housing project in the warehouse district will enjoy the added convenience of living within a two minute drive of a modern "one stop shopping centre".

4.1.3 Proximity to Cultural, Educational and Other Facilities

In addition to being within walking distance of major office buildings and shopping malls, the warehouse district also has the added attraction of proximity to a number of other significant land uses, including several large hotels, City Hall, the main municipal library, the Centre Club, the Citadel Theatre, and the planned Concert Hall. The proximity of these major land uses, which are frequent destinations for work and/or pleasure, is an additional locational feature for a loft residential development in the warehouse district.

As noted above, 104 Avenue forms the northern boundary of the warehouse district. The area north of 104 Avenue, occupied until 1990 by CN rail lines, is presently a rather unsightly "no man's land". All this is starting to change however, as construction gets underway on a new $92 million downtown campus of Grant MacEwan Community College. The master plan for this project envisages the development of approximately 700,000 square feet of buildings on a 26 acre site.

Most of the academic facilities will be located between 105 and 108 Streets. A major recreation centre will occupy most of the land between 108 and 109 Streets. Surface parking lots and sports fields will be located on the west side of 109 Street.

This downtown campus of Grant MacEwan Community College is being designed to ultimately accommodate a "full time equivalent" of 6,500 students, and will bring 9,000 people (students and staff) into the downtown daily in its initial stage. The location of this major educational facility right across the street from the study area will certainly enhance the marketability of a loft residential development in the warehouse district.

A number of large vacant sites abut the eastern, northern and western edges of the warehouse district. Of particular note is the parking lot which occupies the entire city block on the east side of 103 Street between 103 and 104 Avenues, the CN lands east of Grant MacEwan Community College and the undeveloped city block on the west side of 109 Street, also between 103 and 104 Avenues.

At the present time, there are no active development proposals for these properties, but their future development, along with other infill projects in the downtown areas, will further increase the breadth and depth of activities for residents to access.

4.1.4 Conclusion

The above examples would suggest that Edmonton's downtown district fulfills the four characteristics that provide a good environment for downtown residential development, specifically:

- major office development serving a large white collar and professional work force;
- substantial retail development;
- a concentration of cultural, entertainment, and educational activities; and
- all of this in a geographically compact downtown that wraps around three sides of the warehouse district study area.

The warehouse district therefore would appear to be well suited to residential development.

4.2 Study Area Land Uses

As is common for old warehouse districts located on the periphery of the commercial core, the study area presently contains an eclectic assortment of land uses, including four major office buildings:

- the 23 storey Royal Lepage Building on the west side of 103 Street, just north of Jasper Avenue;
- the Boardwalk/Revillon complex on the north side of 102 Avenue between 103 and 104 Streets;
- the 9 storey 105 Street Building on the west side of 105 Street, a half block north of 102 Avenue; and
- the 10 storey Corner Point Building at the southeast corner of 102 Avenue and 105 Street.

The older 4 storey Dorchester Building at the corner of 109 Street and 104 Avenue has been renovated and leased primarily to office tenants. A 300 room Ramada Renaissance hotel is located on the east side of 105 Street just south of 102 Avenue.

The Boardwalk/Revillon complex is by far the biggest and best example of a renovated historic building in the Edmonton area. The Boardwalk was built in 1910, the Revillon building was built in 1912. These two adjoining buildings were extensively renovated in 1986 and integrated into a single mixed use project comprising 220,000 square feet of office space and 50,000 square feet of retail/restaurant space. By virtue of its size as well as its internal and external appearance, the Boardwalk/Revillon complex provides a "heritage" atmosphere which can be a definite marketing asset for a loft residential project in the warehouse district.

The Boardwalk/Revillon complex contains the only significant concentration of retail tenants in the study area. The ground floor of this mixed use project contains a reasonably successful specialty food and specialty retail market containing about forty small tenants. Other things being equal, proximity to the Boardwalk/Revillon complex would be a locational advantage when it comes to marketing a loft residential project.

There are not a lot of other notable retail tenants in the study area at the present. One worth noting is the ALCB outlet located on the west side of 106 Street just north of 102 Avenue. The presence of this facility in the study area might be regarded as somewhat of a mixed blessing: on the one hand, its extensive selection of fine wines attracts an upscale clientele; on the other hand, the store also attracts its share of "undesirables".

In addition to the liquor store, there are several other land uses in the study area which conflict to varying degrees with residential development. These include:

- the Alberta Alcohol and Drug Abuse Commission (AADAC) building at the corner of 103 Avenue and 107 Street;
- the Greyhound Bus Depot at the corner of 103 Avenue and 103 Street; and
- the firehall on 107 Street just north of 102 Avenue, presently being redeveloped.

As well, there are a number of nightclubs in the area, usually in older buildings. Many of these are quite transitory so they are not individually noted. Proximity to any one of these incompatible land uses will have an adverse impact on the marketability of a loft housing project.

The only major residential development in the study area at the present time is the 12 storey Hillsborough Place apartment building. This 227 unit project is currently a rental project, with rents ranging from a low of $550-600 per month for a one bedroom unit to a high of $750-805 per month for a three bedroom unit.

The only other residential project in the study area is the El Mirador apartment on the east side of 108 Street just north of Jasper Avenue. This very old, Spanish style low rise building has 46 rental units, mostly one bedroom suites. The rental rate for a one bedroom unit is currently $420 per month.

Parking lots and run down older buildings occupy a significant percentage of the study area. Most of the old buildings are not suitable candidates for conversion to loft residential space because they are too small (one or two storeys) and/or because they have no attractive architectural features. Their small size also makes them feasible candidates for demolition and redevelopment.

The area is ripe for redevelopment, as evidenced by the large number of vacant land parcels and the predominance of small older buildings within its boundaries that are not being maintained and upgraded to current standards. Present land uses that would conflict with new residential development are limited in number and scattered locationally. It would therefore appear to be suitable for the development of residential land uses.

4.3 Circulation Systems

4.3.1 Pedestrian Circulation

As noted previously, the subject site lies within reasonable walking distance of a significant number of major office buildings and major shopping malls. The sidewalks of the street grid accommodate pedestrian movement throughout the downtown area. As well, during inclement weather, access to most of the commercial and cultural/educational facilities is available via the enclosed pedway system.

At the present time, the pedway system extends from 97 Street in the east to 104 Street in the west, and from 104 Avenue in the north to MacDonald Drive in the south. Notable land uses connected via the pedway system include the Convention Centre, Canada Place, the Citadel Theatre, the Law Courts, Edmonton Centre, Eaton Centre, the Hudson's Bay Centre, the Centennial Library, City Hall and the MacDonald Hotel.

PRIORITY CONNECTIONS
1 - CENTENNIAL LIBRARY TO CHURCHILL SQUARE PEDWAY (EDMONTON CENTRE) -BELOW GRADE
3 - WESTIN HOTEL TO McCAULEY PLAZA/ CONVENTION CENTRE PEDWAY -BELOW GRADE
3 - MacDONALD HOTEL TO McCAULEY PLAZA -BELOW GRADE
4 - McCAULEY PLAZA TO EDMONTON CONVENTION CENTRE -BELOW GRADE
5 - BROWNLEE BUILDING TO PROVINCIAL LAW COURTS BUILDING (PEDWAY ROUGHED IN, NEEDS TO BE COMPLETED)
LEGEND
EXISTING ABOVE GRADE PEDWAY
EXISTING AT GRADE PEDWAY
EXISTING BELOW GRADE PEDWAY
EXISTING PRIVATE PEDWAY
L.R.T. LINE
PEDWAY DEVELOPMENT AREA
1
2
3
4
5
COMMERCIAL PEDWAY DEVELOPMENT AREA

Figure 11: The Downtown pedway system, from a City of Edmonton Planning Department document.

At the present time, the closest access points to the pedway system for persons living in the warehouse district are an entrance to the Eatons department store at the northeast corner of 103 Street and 102 Avenue, and an entrance to the Bay LRT station at the northeast corner of 104 Street and Jasper Avenue. Proximity to these pedway access points could be a marketing advantage for loft residential projects located near the southeast corner of the warehouse district.

Pedestrians from the study area also have access to other destinations outside the downtown area via the LRT system which has two stations adjacent to the warehouse district. Future extensions — to the University in 1992, possibly to the University Farm area by 1996 and to Southgate by the year 2000 — will add to the desirability of living within walking distance of an LRT station, making this another potential marketing feature of living in the downtown area.

The closest access points to the LRT network are a street level entrance to the Corona Station at the northeast corner of Jasper Avenue and 107 Street, and a street level entrance to the Bay Station at the northeast corner of Jasper Avenue and 104 Street. Loft residential projects located in the southern portion of the warehouse district would have the best proximity to these LRT access points.

4.3.2 Vehicular Circulation

The area is well served by the existing street grid, in terms of vehicular circulation. However, there is one negative aspect of this system worth noting. Several streets which either traverse or border the warehouse district carry significant volumes of traffic to/from the downtown core. The three busiest arterials in the study area are:

- 104 Avenue, which carried an average of 30,500 vehicles per day in 1989;
- 109 Street, which carried an average of 27,500 vehicles per day in 1989; and
- 105 Street, which carried an average of 13,100 vehicles per day in 1988.

These already substantial traffic volumes can be expected to increase noticeably during the next few years consequent to the completion of the CN shopping centre and the downtown campus of Grant MacEwan Community College. When evaluating warehouse buildings for conversion to loft housing, preference should be given to those sites which do not front onto a busy street.

SECTION FIVE

PUBLIC POLICY INFLUENCES

5.1 Municipal Plans

5.1.1 General Municipal Plan (1990)

The City of Edmonton General Municipal Plan supports development of loft housing in the study area. Section 1- 13 states the policy of directing civic efforts at making the inner city an attractive place to live and invest, including core area housing. The Plan also contains policy statements to "utilize City land holdings to encourage the construction of housing in and near the Downtown through the sale or leasing of land" (Policy 4.C.2), and to "continue to apply incentives in the system of development controls to encourage mixed-use developments that include housing as a substantial component for areas in or near the Downtown" (Policy 4.C. 5). Finally, the Plan has a series of policies to achieve the objective "to preserve buildings, sites, and areas which have a special character, cultural or historical significance" (Policy 5. C).

5.1.2 Downtown Area Redevelopment Plan

The study area encompasses three areas of the Downtown Area Redevelopment Plan (D.A.R.P.):

- the core commercial area (Section 20.2), which permits residential development as a secondary and discretionary use;
- mixed use area II (Section 20.5), in which residential development is encouraged, as is conservation of its significant, older structures; and
- mixed use area IV (Section 2.7), a residential-commercial mixed use area, emphasising a residential character.

Policies common to these areas include:

- exclusion of surface parking lots (except Area IV);
- access to parking and loading to be, wherever possible, via the lane; and
- requirements of separation space in accordance with the Land Use Bylaw, which can affect ground floor residences adjacent to the street; however, the Development Officer has the discretion to waive this requirement for an existing building.

The Plan also addresses heritage preservation in Sections 8 and 16. Five buildings in the study area that are identified on the City of Edmonton Register of Heritage Buildings are potential candidates for loft conversion. The Plan also identifies 104 Street as a Heritage Area within the study area. Incentives proposed to promote conservation include:

- transfer of land-use density;
- density bonuses; and
- relaxation of residential parking requirements, by exempting rehabilitation projects.

These incentives are discussed in more detail in a later section.

Finally, the Plan calls for the following in Section 17:

- development of a new park at 107 Street, between 102 and 103 Avenues;
- the acquisition of smaller parks in the study area;
- widening of the sidewalks on 104 Street sidewalks to reinforce it as a pedestrian oriented street; and
- special landscape treatment of 104, 105 and 109 Streets in the study area.

5.2 Land Use Bylaw

The City of Edmonton Land Use Bylaw was reviewed with Planning Department staff. Properties containing older buildings in the study area have either a CMX or DC1 designation, which respectively can be described as follows:

- CMX, a mixed use category in which residential apartment housing is a discretionary use; and
- DC1, a category providing direct control of "areas of unique character...., as identified and specified in an Area Structure Plan or Area Redevelopment Plan".

One specific aspect of the Land Use Bylaw that was explored was the potential for density transfer, the reasoning being that if the density permitted on a site was not being fully utilized by an existing older building, and the excess density could be transferred to another property, then it would have a value which could be sold. The revenue from this could be used to reduce the property acquisition costs applicable to the loft conversion project. This opportunity is recognized and encouraged in the Downtown Area Redevelopment Plan. However, the bylaw does not restrict density under DC designations. Rather the density to be permitted is a negotiated item. As well, permitted densities under CMX are substantial. As a result, density transfer is not utilized in Edmonton. In fact, the City does not presently have a policy regarding density transfer.

Parking policy was another aspect of the Bylaw that was investigated. Parking preferences identified in the market evaluation (Section 3.3.3) matched or exceeded City standards, which are listed below:

- .5 stalls per bed-sitting room;
- .75 stalls per one bedroom; and
- 1.25 stalls per 2 bedroom or larger; including
- 1 parking space per every seven dwellings allocated to guests.

Section 16 of the Downtown Area Redevelopment Plan gives a Development Officer the authority to exempt rehabilitation projects from these calculations. Nonetheless it would be unwise to seek standards lower than market preferences, as it would undoubtedly reduce the marketability of the residential units.

One aspect of loft housing that came out in the focus group interviews identified in Section 3.2 was the desire on the part of some people to be able to do their work in their residential unit. This was particularly the case for artists and people in other creative fields. It would therefore be important that the zoning for a particular building permit this mixed use. The relevant zoning categories identified above allow for this.

5.3 Building Codes

The older warehouse buildings generally do not meet current building code standards. Further, the new 1990 Alberta Building code will come into effect in mid 1991. It is more stringent in many areas than previous codes, and will have a major impact on the financial feasibility of any loft warehouse conversion project and the final character of the building as it relates to the nostalgic character that people find so appealing about these older buildings.

It is anticipated that viable buildings will be three or more storeys in height. As such, they will typically fall into a category in the code that will require non-combustible construction. A few buildings may generally meet this requirement but a number are of wood post and beam construction. As such, they will require sprinklers and negotiation of some other form of fire safety compromise with City of Edmonton officials to overcome this unalterable condition, particularly as exposure of the old construction components is one aspect of these older buildings that people find very appealing.

Code requirements dictate two safe means of exiting. Older buildings usually do not meet current standards and will require upgrading in this aspect.

Residential buildings must also be fully accessible by the handicapped under the 1990 Codes. This requires ramp or elevator access to all floors. Some older warehouse buildings contain no passenger elevator, although many contain freight elevators. This issue is addressed in Section 7.2 and 7.3.

With respect to mechanical and electrical standards, including air ventilation, exit and emergency lighting, fire alarms, fire fighting and wiring, major upgrading will be necessary. Typically, unless these systems have been significantly upgraded over the years, they will typically need to be totally replaced.

A detailed code analysis was undertaken in conjunction with the specific building ultimately selected as a case study for this document. This is discussed in Section 7.2.

5.4 Heritage Designation

Heritage designation of a building to obtain public assistance can be pursued at the municipal, provincial, and national levels. At the the national level, Heritage Canada provides various forms of assistance, but their resources are limited and needs widespread. The older buildings in the study area are not considered to be of a level of merit likely to elicit support from this source.

The Alberta Historical Resources Foundation, a crown agency of Alberta Culture and Multiculturalism, provides grant assistance for the preservation and restoration of designated buildings through its Historic Resource Preservation Program. The maximum grant for a provincially designated building is $75,000. For undesignated sites, the maximum grant is $5,000.

The City of Edmonton in 1988 adopted a 'Policy to Encourage the Designation and Rehabilitation of Municipal Historic Resources in Edmonton', for buildings of outstanding architectural and/or historical significance. The designation of a building can be initiated by an owner, a request from the public, or the City. Designation also qualifies the building for potential relaxation of municipal parking, loading and amenity requirements and for three levels of financial compensation in the form of property tax abatement for up to seven years. The degree of assistance is allocated in relation to the assessed merits of the building.

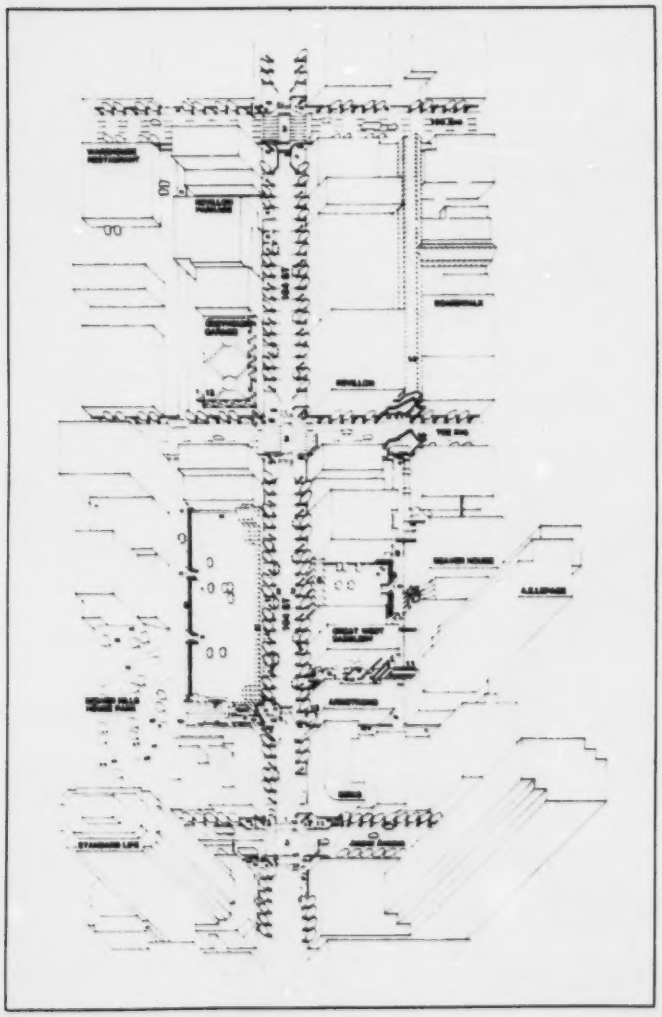
To date, the City of Edmonton has conducted and documented their own heritage assessment of the following buildings in the study area (see Appendix C for an example):

- Great West Saddlery Building, 10137 - 104 Street;
- Canadian Consolidated Rubber Company Building, 10249 - 104 Street (commonly referred to as the Army and Navy Building);
- Horne and Pitfield Building, 10301 - 104 Street;
- Mercer Building, 10363 - 104 Street; and
- H.V. Shaw Building, 10229 - 105 Street.

The research necessary on a building can be initiated by an owner if it has not been undertaken by the City.

5.5 Area Improvements

Studies have indicated that "downtown housing tends to do better when it is located on the edge of the office and retail core in an area where a residential atmosphere exists or can evolve".[1] In this regard, the City of Edmonton can make important contributions. The Downtown Area Redevelopment Plan recommends the acquisition and development of a park space to serve the study area. The City does own land in the area that could be utilized for this purpose. As well, it could initiate streetscape improvements to enhance the appearance of the area and in particular the pedestrian domain. The City Planning Department has prepared a draft plan for such improvements on 104 Street. The plan also incorporates a mini park (see illustration this page).



Both 104 Street and 108 Street have been identified by the City for major rehabilitation in the 1993 - 1995 timeframe. Streetscape improvements will be considered in conjunction with this rehabilitation work.

As well, the City of Edmonton could, through land use controls, exclude uses not entirely compatible with a residential atmosphere but the land use designations in the study area presently encompass a wide variety of uses.

Figure 12: Streetscape improvements proposed for 104 Street by the City Planning Department in 1985.

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1 M. Leanne Lachman and Robert E. Miller, Downtown Housing: Where the Action Is, The Journal of Real Estate Development, Vol. No. 1, Issue No. 1, Summer 1985.

5.6 Other Inducements

Until recently, the City of Edmonton had a Development Concessions Policy designed to induce redevelopment in the downtown area through property tax forgiveness incentives. A number of projects were developed with the benefit of this assistance in the '80's. The policy expired in 1989, however, and current political attitudes frown on its reintroduction.

There is some current political support for assisting low income housing, but no public policy presently exists to assist the private sector in this regard.

Another avenue of inducement available to the various levels of government would be provision of publicly held property for such a project at below market values. The Province of Alberta presently owns a suitable older warehouse building, the Horne and Pitfield Building at 10301-104 Street. It also owns a number of other properties in the area, some abutting privately held warehouses.

Likewise, the City of Edmonton also owns properties in the area, including the vacant lot between the old Armstrong and Great West Saddlery Buildings on 104 Street. This land could be utilized to accommodate sideyard windows or on-site parking for a loft conversion. The City is restricted by the Municipal Government Act to sell land only at market value, "except when the sale is for the purpose of providing land on which housing accommodation is to be constructed."[1] Thus the City is permitted to offer land at very reasonable rates to foster residential development. Alternately, it could accomplish this by means of a long term land lease or land swap. A long term lease could also offer the opportunity for low initial payments, escalating over time. The acquisition of the W. W. Arcade building by the City was accomplished through a property swap with the former owner, Imperial Lumber.

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[1] Province of Alberta Municipal Government Act, Article 127

5.7 Other Public Policy Influences

In the case of the 41 Alexander Street project in Vancouver, a major obstacle was encountered in the Condominium Act of British Columbia. This legislation required that before separate title could be created and transferred for each residential unit in the building, the premises must be habitable. However, as the project was being marketed as "shell" space with the purchaser doing this own interior improvements, including kitchen and washroom(s), the units were not in fact habitable at the time title was to be transferred. This obstacle was eventually overcome, but it caused a considerable delay in the project and resulted in a number of initial unit sales being cancelled.

This issue was investigated relative to the Alberta Condominium Act with the Deputy Superintendent of Real Estate, Alberta Consumer and Corporate Affairs, who reported as follows:

- the Act does not appear to restrict the sale of a condominium intended for occupancy to one ready for occupancy; title to an unfinished shell may be transferred; and
- the Act requires a certificate from the local authority (City of Edmonton) to be issued before the Land Titles office can register a condominium.

The City of Edmonton has stated that, in regard to the latter point, before issuing the required certificate, it reviews the condominium plan to insure its conformance with the conditions of the Development Permit.

A last issue that may become an influence is the presence of a number of artists with studios in these older buildings. They are a vocal group opposed to redevelopment if it does not accommodate their continued use of space at present low rental levels. Where public approvals are required and to the extent that the political level is influenced by this group, delays or roadblocks in obtaining these approvals may be experienced. It is a delicate issue which requires a sensitive and considered response by both the public and private sectors.

On a positive note in this regard, two prospects exist:

- there is substantial space available in the area for artists to relocate to , should they be renting in a building that an owner wishes to redevelop; and
- action programs have been implemented in other situations to provide space specifically for artists.

One example of the latter locally is the Artspace co-op housing project just east of the downtown, funded through the Canada Mortgage and Housing Corporation co-op housing program. An Artspace project in Winnipeg was federally funded through the Department of Communications. A project in Toronto and the Phoenix Relocation Project are two other examples.

SECTION SIX

PROSPECTIVE BUILDINGS

6.1 Study Area Survey

A visual survey of the study area identified nine older buildings in the warehouse district which are large enough and attractive enough (from the outside at least) to merit consideration for conversion to loft housing. These nine prospects are:

1. Armstrong Block at 10127 - 104 Street (50' x 150' property);
2. Great West Saddlery Building at 10137 - 104 Street (50' x 150');
3. Army & Navy Building at 10249 - 104 Street (50' x 150');
4. Horne & Pitfield Building at 10301 - 104 Street (200' x 150');
5. Mercer Warehouse at 10363 - 104 Street(200' x 150');
6. Millar Building at 10330 - 104 Street (150' x 150');
7. H. V Shaw Building at 10229 - 105 Street (100' x 150');
8. a three storey yellow brick building at 10355 - 105 Street (150' x 150'); and
9. MacCosham Building at 10301 - 109 Street (100 x 140').

To varying degrees, all nine of these buildings have some of the characteristics required for conversion to a loft housing project. They are located on the map on this page and described on the following pages.

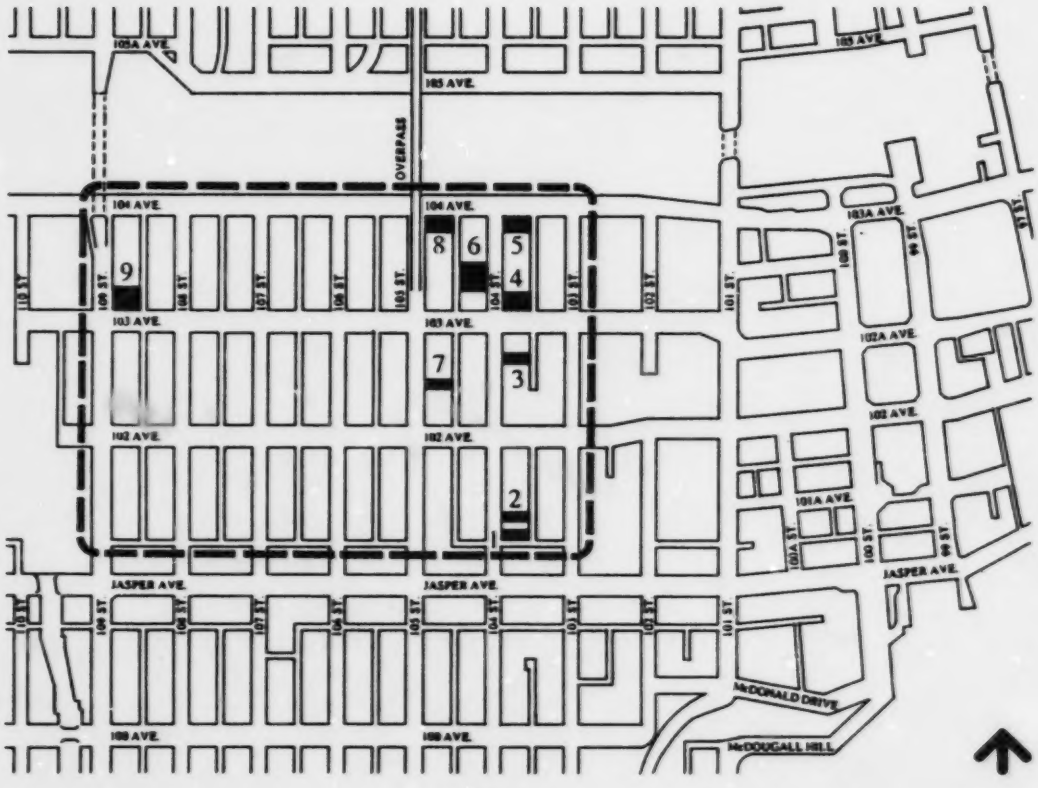

Figure 13: The location of the nine warehouse buildings considered as candidates for conversion to loft housing.

6.2 Building Descriptions

6.2.1 Armstrong Block zoned CMX (2)

This building is a rather plain brick structure which, unlike all other examples, was built not for a warehouse/commercial use but as a residential building. It remains occupied today. It has the advantage of abutting a lane on its south face, permitting windows without ownership of adjacent land.

Figure 14: Armstrong Block

6.2.2 Great West Saddlery Co. Warehouse zoned CMX(2)

Built in 1911, the building was occupied by the original owner until 1960. It is of brick masonry with a handsome front facade. The interior structure is heavy timber post and beam. The original interior and exterior characteristics of the building remain intact and in good condition, notably the original pressed tin ceiling. Occupancy includes an art gallery and artists offices/studios. It is a key component of the attractive and relatively homogeneous streetscape of this block of 104 Street.

Figure 15: Great West Saddlery Co. Warehouse

6.2.3 Canadian Consolidated Rubber Building zoned DC1

Built in 1913, the building is a brick structure with an attractive street facade with cast concrete trim. Other sides contain painted advertising, including that of the present owner/occupant, the Army & Navy. The brick walls exhibit deep cracks and the condition of the building would warrant a detailed inspection. This building combines with the Revillon Building to form a handsome streetscape in this block.

Figure 16: Canadian Consolidated Rubber Bldg.

6.2.4 Horne and Pitfield Building zoned DC1

Built in 1911, with a 1923 two storey addition on the north side (expanded to four floors in 1947), this warehouse is a utilitarian brick and heavy timber construction, with an attractive front facade. The building is double the width of most of those identified but the site permits windows on both sides. Redevelopment would require property acquisition from the Province plus buyout of a tenant's 10 year lease. The building has a dominant corner location and reinforces the streetscape of 104 Street.

Figure 17: Horne & Pitfield Building

6.2.5 Mercer Building zoned DC1

Built in 1911, with an addition in 1922, this is another brick and heavy timber warehouse building of utilitarian character, somewhat enhanced on the front facade. Like the Horne and Pitfield Building, it has a large floor plate, but has windows on the sides. However, its frontage onto the traffic noise of 104 Avenue is a severe liability. The building continues and reinforces the streetscape established by other buildings to the south on 104 Street and anchors its north end.

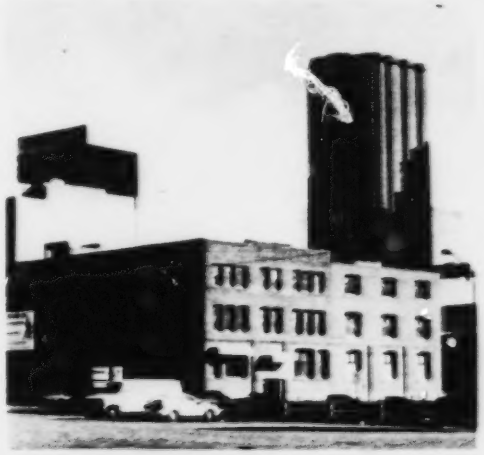

Figure 18: Mercer Building

6.2.6 Millar Building zoned DC1

A much later construction, this building has a more modern industrial character. It is also a masonry exterior, brick on the front, but a concrete interior structure. It has a large floorplate, without the property on the north side to permit windows. The existing windows are large, and ceiling height is sufficient to permit mezzanine loft space. The building presently contains storage space and several artists' studios.

Figure 19: Millar Building

6.2.7 H. V. Shaw Building zoned DC1

Built in 1914 as a cigar factory, this was one of Edmonton's first completely fireproof buildings. It has a richly articulated brick front facade. The south side is dominated by large period painted signs. The interior structure is poured concrete post and beam, still in good shape. It is presently occupied by several businesses and artists' studios. It dominates its block as a highly visible landmark.

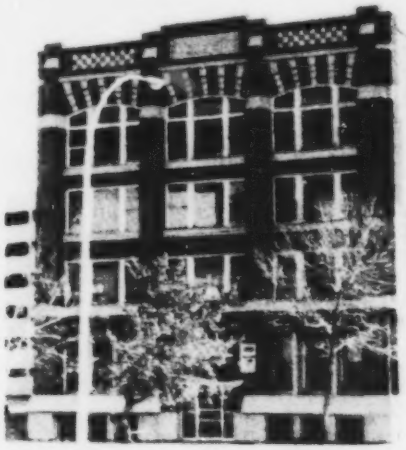

Figure 20: H. V. Shaw Building

6.2.8 10355 - 105 Street zoned DC1

This post-second world war building is a more contemporary yellow brick and concrete structure. It contains some interesting art deco detail in the interior stairway. However, occupying a corner site abutting 104 Avenue, traffic noise is seen as a major disadvantage.

Figure 21: 10355 - 105 Street

6.2.9 MacCosham Building zoned CMX (6)

This building abuts two streets and a lane, providing opportunity for windows. However, its plain stucco character, remoteness from the core and exposure to the high level of traffic noise from 109 Street make it a less attractive prospect than other buildings identified.

Figure 22: MacCosham Building

6.3 Comparative Rating of Buildings

6.3.1 Rating Criteria

In order to compare the nine buildings selected against one another, a quantitative evaluation method had to be developed. This rating system, described in point form below and applied in Section 6.3.2 which follows, has been developed by the consultants based partly on the experience of loft housing projects in Winnipeg and Vancouver, and partly on the results of the focus group meetings held in Edmonton. The criteria are all market-related and are grouped into three sub categories. Variables judged to be quite important from a market perspective (eg. exterior appearance) are rated on a scale of one to ten. Variables judged to be of lesser importance (eg. proximity to an LRT station) are rated on a scale of one to five. Several building characteristics — proximity to undesirable land uses, exposure to traffic noise and size of the project — are rated on negative scales.

By its very nature, the rating process is a rather subjective one; different people would probably rank the buildings in a somewhat different order. Nevertheless, the process is a useful one insofar as it reveals the relative combined merits of each building and provides a logical rationale for further study.

With this rationale as the basis for structuring an evaluation process, the variables adopted in the rating system are:

Locational Criteria

1. Proximity to offices: an important variable (scored on a scale of 1 to 10) according to prospective purchasers. Given the distribution of office buildings in downtown Edmonton, this variable favours buildings located near the southern and/or eastern borders of the warehouse district.

2. Proximity to shops: an important variable (scored on a scale of 1 to 10) according to prospective purchasers. This variable favours buildings located close to Eaton Centre and the Bay (ie. buildings located near the southern and/or eastern borders of the warehouse district).

3. Proximity to LRT: a secondary factor (scored on a scale of 1 to 5) according to prospective purchasers. This variable favours buildings located closest to the Corona Station at the corner of Jasper Avenue and 107 Street or the Bay Station at the corner of Jasper Avenue and 104 Street.

4. Proximity to a parkade: a secondary factor (scored on a scale of 1 to 5) for most prospective purchasers, although a primary consideration for those households with two cars and only one on-site parking stall. This variable favours buildings located close to the Revillon Parkade.

5. Proximity to the Boardwalk: a secondary factor (scored on a scale of 1 to 5) for most prospective purchasers. Being close to the historic Boardwalk/Revillon complex — a very compatible land use — will be of some value when it comes to marketing loft housing units.

6. Proximity to incompatible land uses: a secondary factor (scored on a scale of -1 to -5) which somewhat reduces the appeal of certain buildings. Incompatible land uses in the

warehouse district include the Greyhound Bus Terminal on 103 Street as well as the AADAC building and the firehall on 107 Street.

7. Exposure to traffic noise: an important factor (scored on a scale of -1 to -10) for most prospective purchasers. This variable penalizes buildings which front onto busy roads, namely 105 Street, 109 Street and/or 104 Avenue.

Character and Convenience

8. Exterior appearance: an important factor (scored on a scale of 1 to 10) for most prospective purchasers. This variable favours buildings with an older brick exterior character, particularly ones that are well detailed.

9. Interior character: a secondary factor (scored on a scale of 1 to 5), since required interior renovations will dominate the final product. This variable favours exposed interior brick and wood structures.

10. Windows: an important factor (scored on a scale of 1 to 10) for most prospective purchasers. This variable favours buildings on corner lots and/or buildings with undeveloped side yards.

11. Ceiling height: a secondary factor (scored on a scale of 1 to 5). This valuable favours a building that can accommodate a mezzanine loft in a suite.

12. Old elevator: an important factor (scored on a scale of 1 to 10) in enhancing building character. This variable will also contribute in a minor way to reducing costs, as an elevator will be required to meet building code requirements for handicapped accessibility, and the cost to upgrade an existing one is expected to be less than installing a new elevator and shaft.

Economics

13. Project size: a secondary factor (scored on a scale of -1 to -5), but a project of substantially more than 25-30 units carries some added risk.

14. Building height: a secondary factor (scored on a scale of 1 to 5) which favours tall thin buildings over short fat ones.

15. Potential for on-site parking: an important factor (scored on a scale of 1 to 10) for most prospective purchasers. This variable favours buildings with large floor plates and/or a vacant adjoining lot.

16. Structural integrity: an important factor (scored on a scale of 1 to 10) in keeping renovation costs within reason.

While even more factors might be introduced, in our opinion adding a few extra variables to the rating system will probably not alter the relative scores of the nine buildings to any significant extent.

6.3.2 Building Scores

The upper portion of Table 1 which follows shows the rating of each building on each variable. The point total for each building appears on the second last line of the table. The bottom line of Table 1 shows the comparative ranking of each building.

The Shaw Building on 105 Street has the highest score (70 points), followed by the Great West Saddlery and Horne & Pitfield Buildings on 104 Street (63 points and 62 points respectively). Coming in last place by a wide margin is the MacCosham Building with only 21 points.

Rating Factor	Armstrong Block	Great-West Saddlery	Army & Navy	Horne & Pitfield	Mercer Bldg.	Millar Bldg.	Shaw Bldg.	105/104 Bldg.	McCosham Bldg.
Locational Criteria									
1. Close to Offices	10	10	8	7	6	7	6	5	1
2. Close to Shops	10	10	10	8	6	7	6	5	1
3. Close to LRT	5	5	3	2	1	2	2	1	1
4. Close to Parkade	3	3	5	4	3	4	4	3	1
5. Close to Boardwalk	3	3	5	3	2	3	4	2	1
6. Incompatible Neighbours	-5	-4	0	-5	-5	0	0	0	0
7. Traffic Noise	-3	-3	-2	-5	-9	-2	-5	-10	-8
Character and Convenience									
8. Exterior Appearance	8	10	8	6	6	4	10	3	1
9. Interior Character	3	5	3	4	3	1	3	1	1
10. Windows	6	3	3	10	9	6	6	9	6
11. Ceiling Height	1	2	2	2	1	5	1	1	2
12. Old Elevator	1	10	7	10	8	7	10	8	8
Economics									
13. Project Size	-1	-1	-1	-5	-4	-4	-1	-1	-5
14. Building Height	4	5	5	4	3	3	4	3	4
15. On-Site Parking	0	0	0	10	3	3	10	3	0
16. Structural Integrity	5	5	1	7	7	10	10	10	7
Point Total	50	63	57	62	40	56	70	43	21
Ranking	6	2	4	3	8	5	1	7	9

Table 1: A comparative rating of nine prospective buildings for conversion to loft housing.

6.3.3 Building Availability

In order to determine the availability of the five preferred buildings, the consultants contacted the owners (in most instances anonymously through a commercial broker) to see if they were interested in selling the property. The results of this informal survey are summarized below:

- H. V. Shaw Building: the current owner bought the Shaw Building and the vacant lot to the south in 1988 for about $645,000 (approximately $463/m^2$ or $43 per square foot of land). The owner has indicated a willingness to sell the property for $645/m^2$ or $60 per square foot of land.
- Great West Saddlery Building: the current owner, a prominent Edmonton businessman, has assembled a number of parcels of land north of Jasper Avenue on the east side of 104 Street. The owner indicated that he is not interested in selling the property or renovating it for residential use. The vacant lot to the south of this building is listed for sale by the City of Edmonton for $525,000 ($754/m^2$ or $70/sq. ft.).
- Horne & Pitfield Building: the current owner, the Province of Alberta, has a value assigned to the property of $570/m^2$ or $53 per square foot, but does not have the property for sale; a 10 year lease to a present tenant (Mini Storage) has no cancellation clause and to buy out this lease could add substantially to the cost of the property, if in fact it could be negotiated.
- Army & Navy Building: the current owner has indicated an asking price for the property of $754/m^2$ or $70 per square foot of land. The property to the south is part of the Revillon/Boardwalk complex. The property to the north is owned by the Province of Alberta. It would likely need to be acquired along with this Army & Navy building, to facilitate side wall windows and necessary parking.
- Millar Building: the current owner will consider selling the property; an interested party had tied up the property and initiated a study early in 1991 to examine the feasibility of its renovation for special use housing. The project subsequently did not proceed, but the property has now been optioned by another party.

6.3.4 Conclusion

The conclusion drawn from these preliminary enquiries was that only two of the top five properties were available. The Army and Navy property would necessitate the acquisition of substantially more property (the large property to the north) and negotiations with two owners. It was therefore concluded that the Shaw Building had both the highest rating in terms of the sixteen criteria evaluated and was more readily available. Therefore, it was selected for detailed study.

SECTION SEVEN

A CASE STUDY: THE H. V. SHAW BUILDING

7.1 The Existing Building and Its Condition

7.1.1 Description of the Property

The property is presently owned by Zaicana Real Estate Ltd., who agreed to provide access to the building for the investigations necessary to undertake this study. The property is 1,393.5m^2 (100ft x 150 ft.). The building is four floors plus a basement, with a typical floor being 557m2 (6,000 sq. ft. or 50 ft. x 120 ft.). The Credit Foncier did an evaluation of the Shaw Building in 1963, when they owned it and leased it to Willson Stationery. A copy of that evaluation is enclosed as Appendix B. Since then, few things have changed:

- the tenants now range from a coin dealer on the main floor to two artists' studios on the upper two floors.
- the steam heating system was converted to hot water, with the addition of new boilers in 1966, and
- the building finishes have deteriorated, but the basic structure remains intact.

The illustrations on the following pages document the basic building and its property. A summary of Architectural and Historical Information, prepared by the City of Edmonton on the building is included as Appendix C.

Figure 23: The Shaw Building when it was occupied by Willson Stationery.

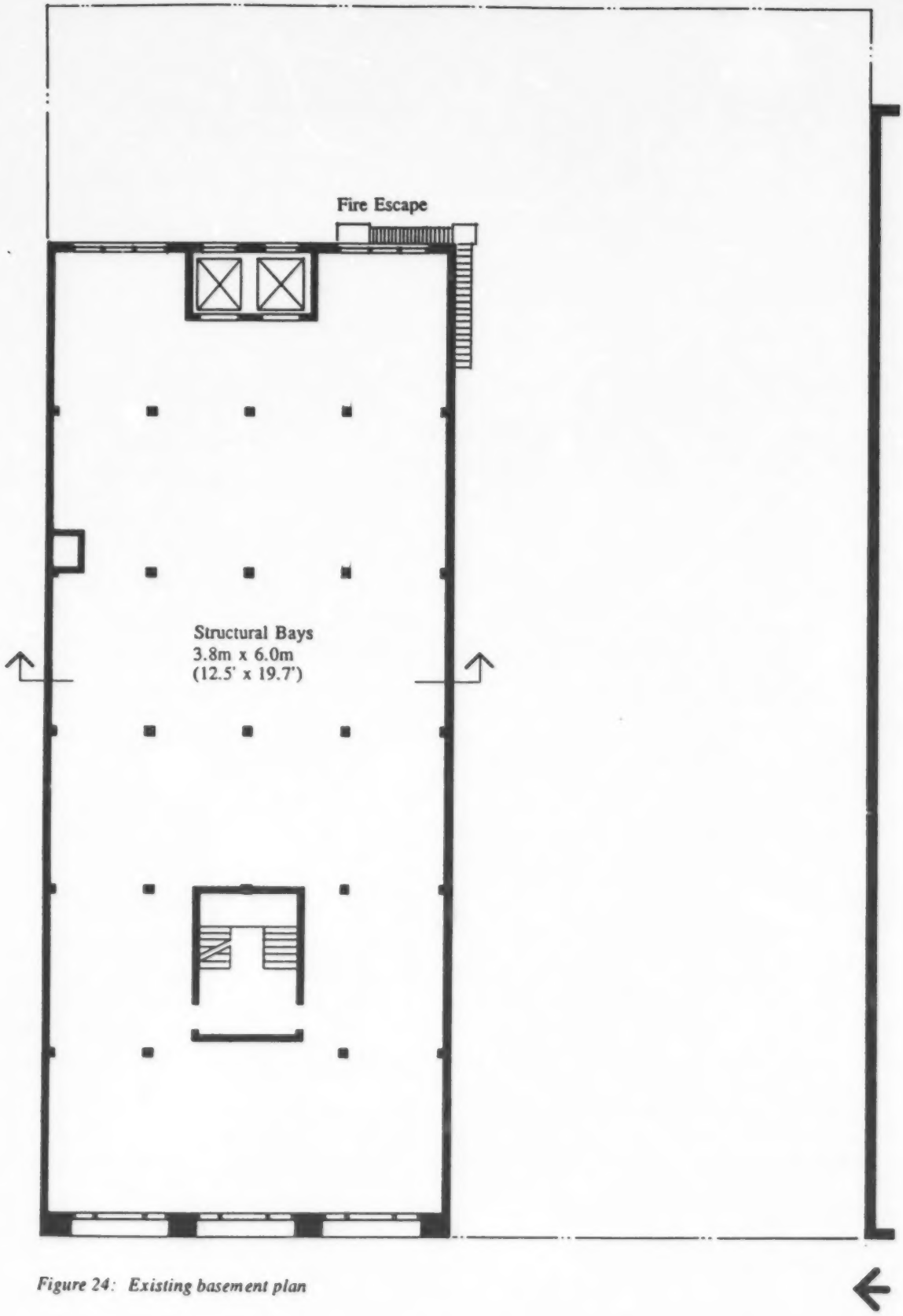

Figure 24: Existing basement plan

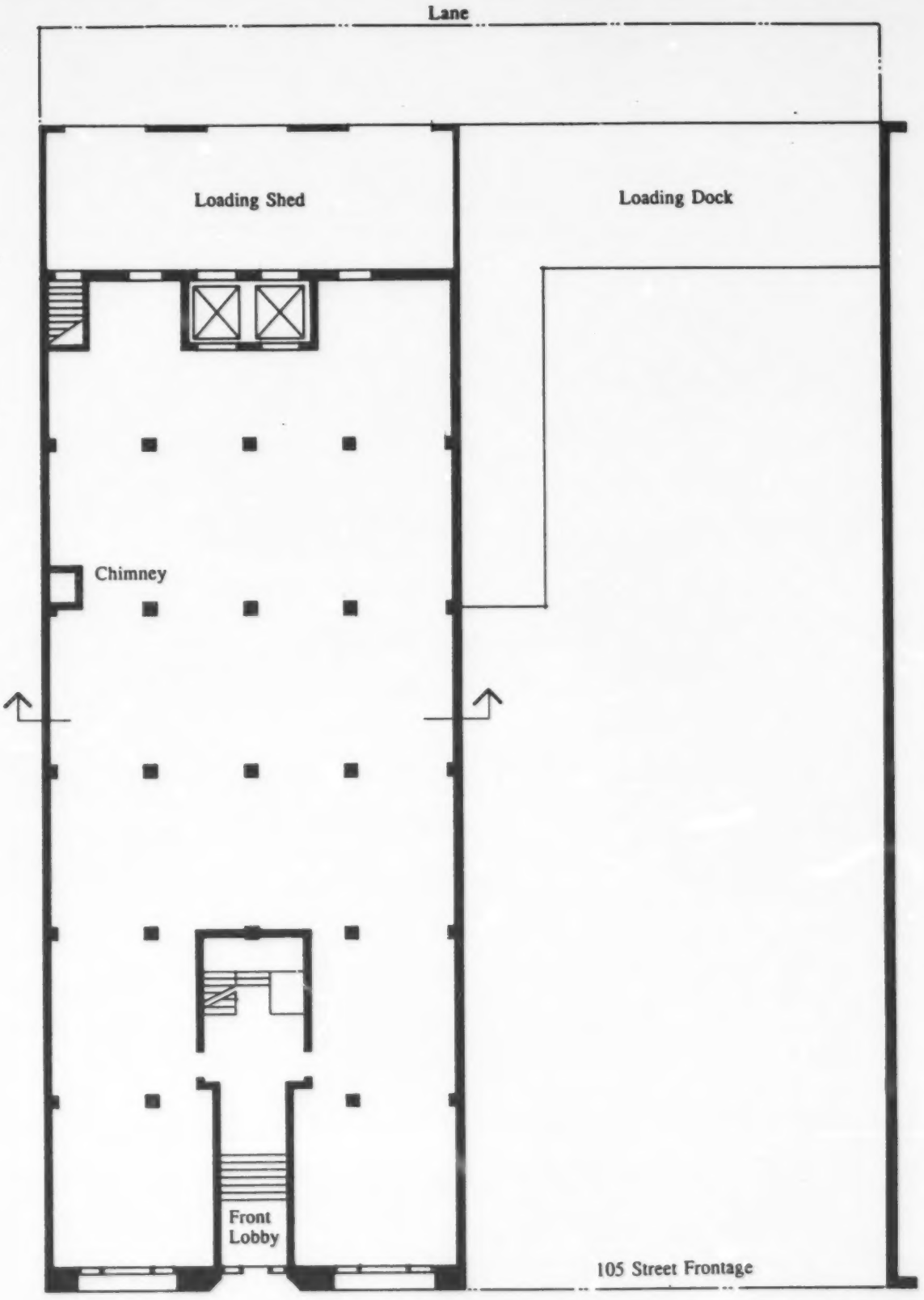

Figure 25: Existing main floor plan and sideyard.

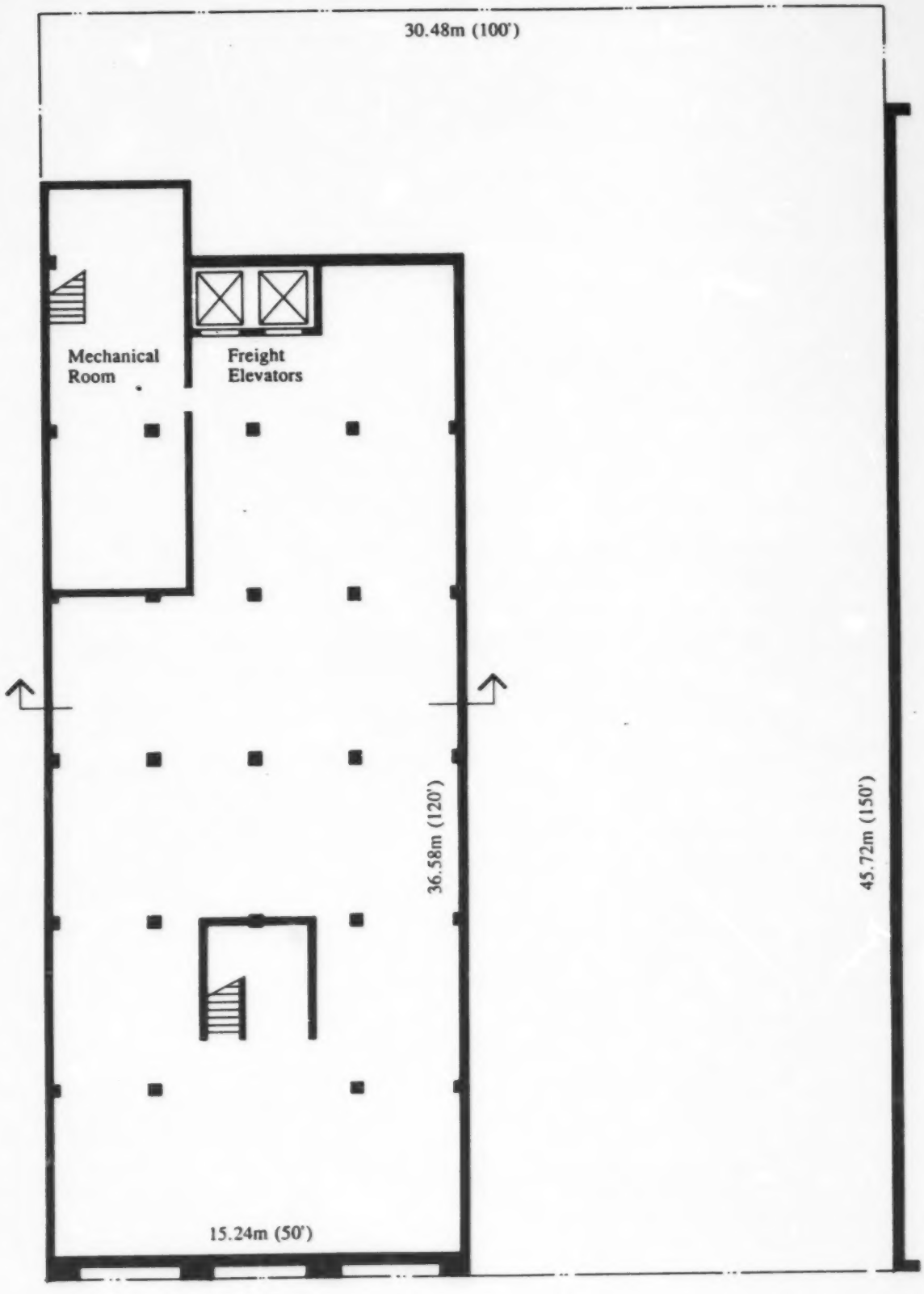

Figure 26: Existing second and third floor plan.

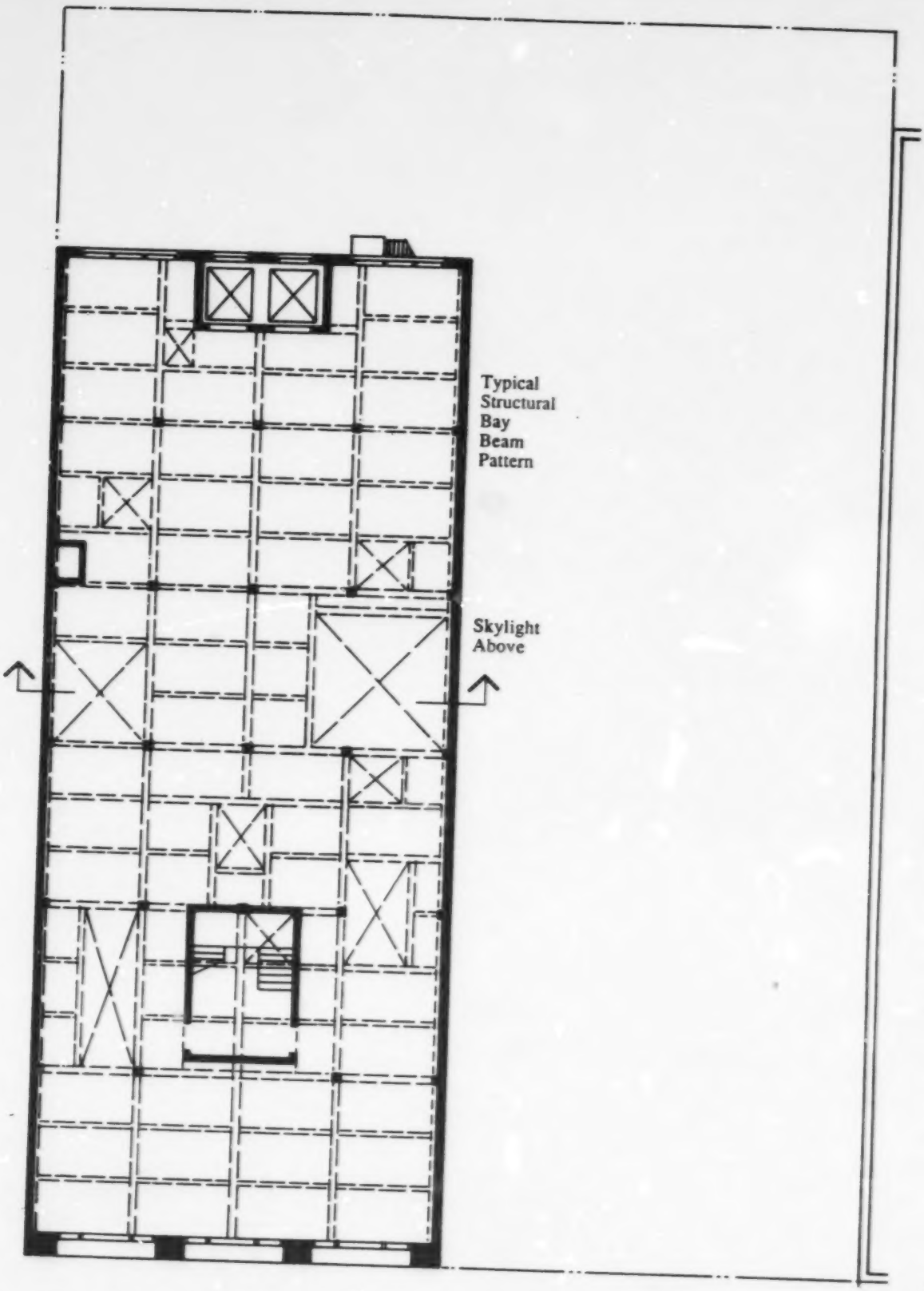

Figure 27: Existing fourth floor plan and roof plan with skylights and elevator machine room shown.

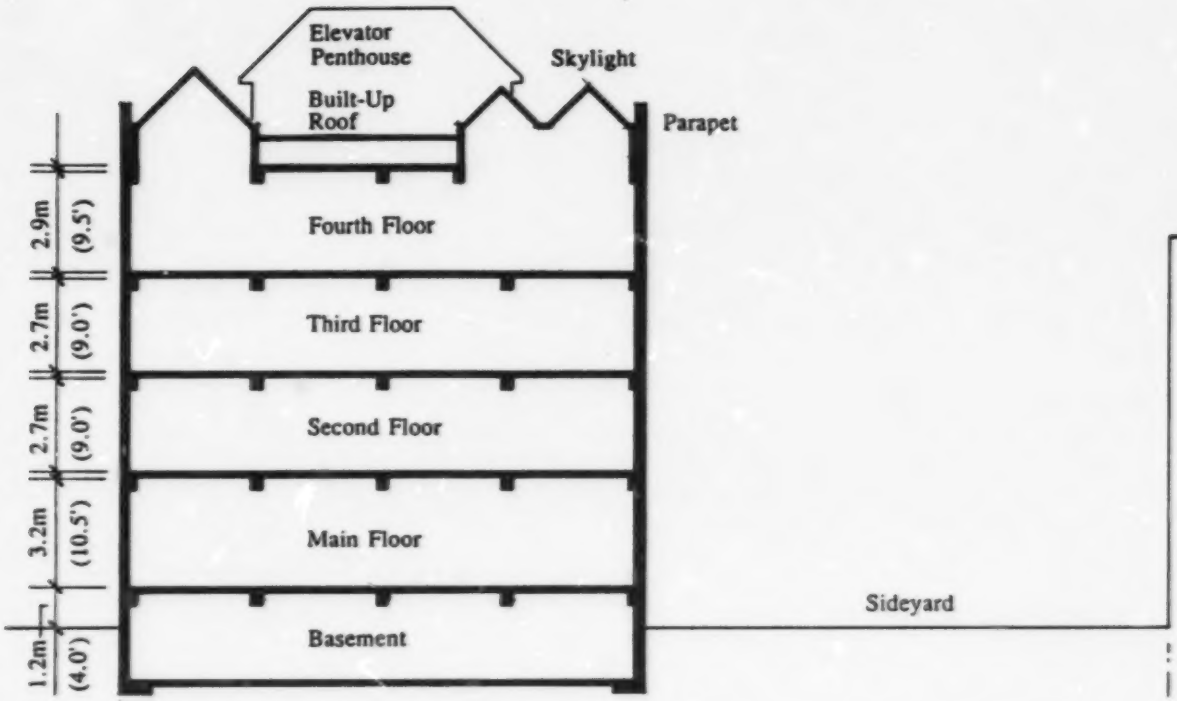

Figure 28: Existing building cross section.

7.1.2 Architectural Evaluation

The building's loadbearing masonry exterior walls are two layers of clay brick with a 50 mm (2 inch) air space between, for a total thickness of 250 mm (10 inches). The brickwork is generally in good condition, as are the tyndal window sills and front parapet cap. Minor repair work will be required in selected locations. The base of the front elevation has had a tile facing applied over the foundation and mullions of basement and main floor windows. It would enhance the building to remove these and restore the original brick finish.

The roof is in poor condition, with numerous leaks. It is estimated to be on a wood frame over the flat concrete roof slab. It has a drop of over 900 mm (3 feet) from the front to back. All flashing and skylights are in poor condition. The elevator penthouse appears to be in reasonably good condition, including its tile hip roof.

Windows at the front are double hung wood frames with single glazing. Rear windows are wired glass in metal frames with casement openers. They will require upgrading or replacement. The front entrance is a contemporary aluminum entrance way. It is in reasonable condition but not in character.

At the rear, there is a one storey shed in very poor condition that will have to be demolished. A concrete loading dock abuts the south side of the building and extends across the full width of the vacant sideyard.

The basement is basically open except for the boiler room, and is in reasonable condition. The floor slab will require some patching or replacement. The main and second floors are extensively partitioned. These will have to be removed. The main entrance stairs and

stairwell up and down from the main floor are sound and will only require decorative improvements. The third and fourth floors are fairly open, with only a limited amount of partitioning. The fourth floor ceiling contains an irregular pattern of skylights, most of which are covered over to minimize leaking. Floors are concrete, except where tiled in present or previous office areas. Exterior walls are exposed brick painted, except in office locations where they have been covered or plastered over.

7.1.3 Architectural Features to be Retained

Some aspects of the building will be worth retaining and enhancing as part of a loft conversion. A primary example is the front elevation with its deeply articulated brick and stone. Likewise, the wrought iron exterior firestair on the rear elevation is a strong visual element. The signs painted on the south elevation remain in relatively good condition and should be retained (see Figure 23 on the first page of this section).

Figure 29: The articulated front facade.

Figure 30: The wrought iron rear fire escape.

Window openings are substantial in size. The windows on the top floor at the front have a particularly interesting character. As well, the skylights offer an excellent opportunity for both interior natural light and interesting spatial volumes.

Figure 31: The top floor front windows.

Figure 32: A fourth floor skylight.

Other items to be noted as offering potential appeal to residential purchasers include:

- interior exposed brick walls;
- the exposed concrete structure, with its angled capital bracing; and
- the freight elevator at the rear of the building, with windowed elevator shafts (see Appendix D for the requirements to convert this to a passenger elevator).

Each of these elements can be utilized to provide purchasers with the character and nostalgia they seek in a loft housing unit.

7.1.4 Structural Evaluation

The superstructure of this building consists of a cast-in-place concrete frame utilizing concrete drop beams with a flat plate floor construction supported on square concrete columns. Main structural beams span east and west, and intermediate beams are spanning north and south supported on this framework. The building module is comprised of units measuring approximately 6.0 metres (19 feet) east and west, and 3.8 metres (12.5 feet) in a south to north direction. The approximate clear headroom under the concrete drop beams is just over eight feet. The exterior walls are comprised of in-fill brick masonry set in the concrete frame of the superstructure.

The foundations for the building, as far as can be ascertained based on this preliminary study, consist of exterior bearing walls set on strip and pad concrete footings. The interior concrete columns are founded on individual concrete pad footings set immediately below the concrete floor slab. This floor slab appears to be a floating slab-on-grade only, and is not a concrete structural slab independently supported and reinforced for such a purpose.

The building superstructure and foundations are very solidly built, and do not exhibit any structural distress anywhere as far as could visibly be determined during the course of this investigation. The building itself would have been designed for heavy warehouse loadings, probably in the range of one hundred to one hundred and fifty pounds per square foot, although this finding cannot be verified without an intensive and costly structural investigation of individual building elements, as no record drawings are available for the building. This would easily satisfy the loading requirements for which the proposed re-development for this building would be classified under the Alberta Building Code Regulations, 1990 Edition. Structurally this building should continue to function adequately for the life time of the proposed re-development.

7.1.5 Mechanical Evaluation

Site services are generally inadequate for future needs. The existing two inch copper water service was installed in 1960. This service cannot provide the capacity needed for the renovated project. The existing six inch clay tile sanitary service was installed in 1914. There is no storm service.

A washroom is located on each floor, immediately behind the main stairwell. The plumbing fixtures appear to be original and in poor condition. Domestic water piping is galvanized iron. Sanitary drainage and vent piping is cast iron. Portions of the plumbing piping system have been replaced as leaks have developed. Little or none of the system can be expected to be salvaged.

The original boiler was abandoned and a cast iron hot water boiler was installed in approximately 1966. Two base mounted centrifugal pumps circulate hot water. Each floor is served by two unit heaters and baseboard radiation along the west wall. The original cast

iron steam radiators are disconnected, but some remain in place. The system is inadequate by current standards and will have to be completely replaced.

There are no central ventilation systems in the building and natural ventilation only is provided through operable windows.

Central air conditioning is not provided. One non-functional through the wall unit air conditioner is located on the fourth floor.

A two inch standpipe in the centre of the building serves one fire hose on each floor.

7.1.6 Electrical Evaluation

The room containing the main services was not accessible. Edmonton Power records indicate a very old service with 200:5 C.T's, 120/208V, 3 Phase, 4 wire, 44 kVA (122 amps) peak demand. Service is from Edmonton Power's downtown underground network system. Power distribution consists of load centres throughout with plug-in breakers. Receptacles are located throughout. Due to age and size, the existing service is inadequate for proposed apartment conversions. The existing panel and receptacle locations and quantity would require a complete replacement of the building power service and distribution.

Lighting consists of a mixture of unshielded incandescent lamps and fluorescent industrial fixtures. Lighting is very minimal, with "pushbutton" style switches. Light fixtures and switches are very old and are at the end of their serviceable life. The switch style indicates an age of greater than 30 years. Wiring, if disturbed, will fail due to cracked insulation. Existing systems will require replacement for proposed apartment conversion due to the age of the equipment. Fluorescent fixture ballasts will likely contain PCB's.

Distribution of miscellaneous phone outlets is piped individually to the main telephone locations. The existing location of outlets is inadequate for proposed apartment conversion. A complete new raceway system would be required.

There are presently no life safety systems such as fire alarm, emergency lighting and exit lights.

7.2 Building Code Analysis

As part of this study, a building code analysis was undertaken and appropriate authorities interviewed. As construction would not be immediate, the 1990 codes were used as the basis for the analysis. The following is a summary of the important findings.

7.2.1 Architectural

The building would be classified as Residential — Group C, up to 6 storeys, which requires:

- non-combustible construction;
- one hour fire rating of:
  - floor and roof assemblies;
  - separation between residential and parking garage uses;
  - suite to suite separation;
  - public corridors; and
  - elevator shaft;
- all floors to be fully accessible;
- acoustical separation of units to STP rating 50; and
- the rear fire escape be upgraded to meet stair standards of code requirements.

7.2.2 Structural

The Alberta Building Code, 1990 Edition, requires such a building to be of non-combustible construction, as stated above. As this building is of cast-in-place concrete construction with brick masonry in-fill, it would satisfy this regulation. The Code further requires the following:

- live loads of 2.4 KPa be utilized for the design of the upper floors, and 4.8 KPa be used for assembly areas, which the existing building construction can easily satisfy.

7.2.3 Mechanical

The following mechanical requirements were identified:

- a new sprinkler system and standpipe system will have to be provided;
- to meet the NFPA No. 14 pressure requirements for a standpipe system, a ULC listed fire pump will have to be installed; and
- ductwork penetrating fire separations must be fitted with fire dampers.

7.2.4 Electrical

The Alberta Building Code (1990) requires the following life safety systems for the proposed apartment occupancy (Group C):

- a supervised multi-zone fire alarm system with smoke detectors in hallways, exit stairs and in hallway make-up air systems; each suite requires a local smoke alarm as well as a heat detector tied to the main fire control panel (monitoring of the sprinkler system can be used in lieu of heat detectors);
- exit lights and emergency powered emergency lights (battery or generator) in all exit corridors and exit stairs;
- an emergency power source for exit and emergency lights to provide power for a 30 minute period; and
- a diesel fired emergency generator, as a sprinkler booster pump is required on this project.

7.3 Proposed Redevelopment

7.3.1 Architectural

Various options for redeveloping the building as residential units were explored, including:

- dividing each floor in half front to rear, creating eight large units of 260m^2 (2800 ft.^{2}) each;
- dividing each floor in half again, creating four units per floor (16 total), with a central corridor, which would provide units ranging from 112m^2 (1200 ft.^{2}) to 130m^2 (1400ft.^{2}); and
- dividing each floor into six units, with two facing the front and four facing the south side, all accessed from a corridor on the north blank wall.

The market assessment concluded that 80% of the units should be 65-74m^2 (700-800 ft.^{2}) one bedroom units. This speaks strongly against the options with fewer units of larger size. This was the experience for projects in other cities, particularly at 41 Alexander Street in Vancouver, where sales floundered with the original plan to have all large units and only became successful when suite sizes were cut in half by creating four on each floor from the two originally planned. For this reason, detailed development of the plans focused on the latter scheme of six units per floor, which best responded to the price sensitive nature of the market.

Other features incorporated as a result of information gained from the market assessment included:

- retention of the exterior building character, including the front facade, painted signs on the south facade, and the rear fire stair;
- enclosed parking on-site;
- ground floor units with fully enclosed outdoor patios;
- utilization of an old freight elevator;
- provision of outdoor yards (private for the penthouse units and shared for other units); and
- fireplaces in every unit.

The design that was finally arrived at provided 24 units, six per existing floor. The six units on the fourth floor are expanded to penthouse units by the addition of a partial fifth floor. The basement level provides 29 enclosed parking stalls (1 each for 19 units plus 2 each for 5 two bedroom penthouse units). Four outdoor stalls are available at the rear of the building for occupants or visitors.

The unit mix is as follows:

	1 bedroom		2 bedroom	
	m^2	ft.^{2}	m^2	ft.^{2}
Ground Floor	6 @ 65-83	(700-890)	—	
Second Floor	5 @ 59-81	(630-780)	1 @ 100	(1080)
Third Floor	5 @ 59-81	(630-780)	1 @ 100	(1080)
Fourth/Fifth Floor	1 @ 86	(930)	5 @ 115-162	(1240-1740)

The layout of these suites and the related parking is illustrated on the following pages.

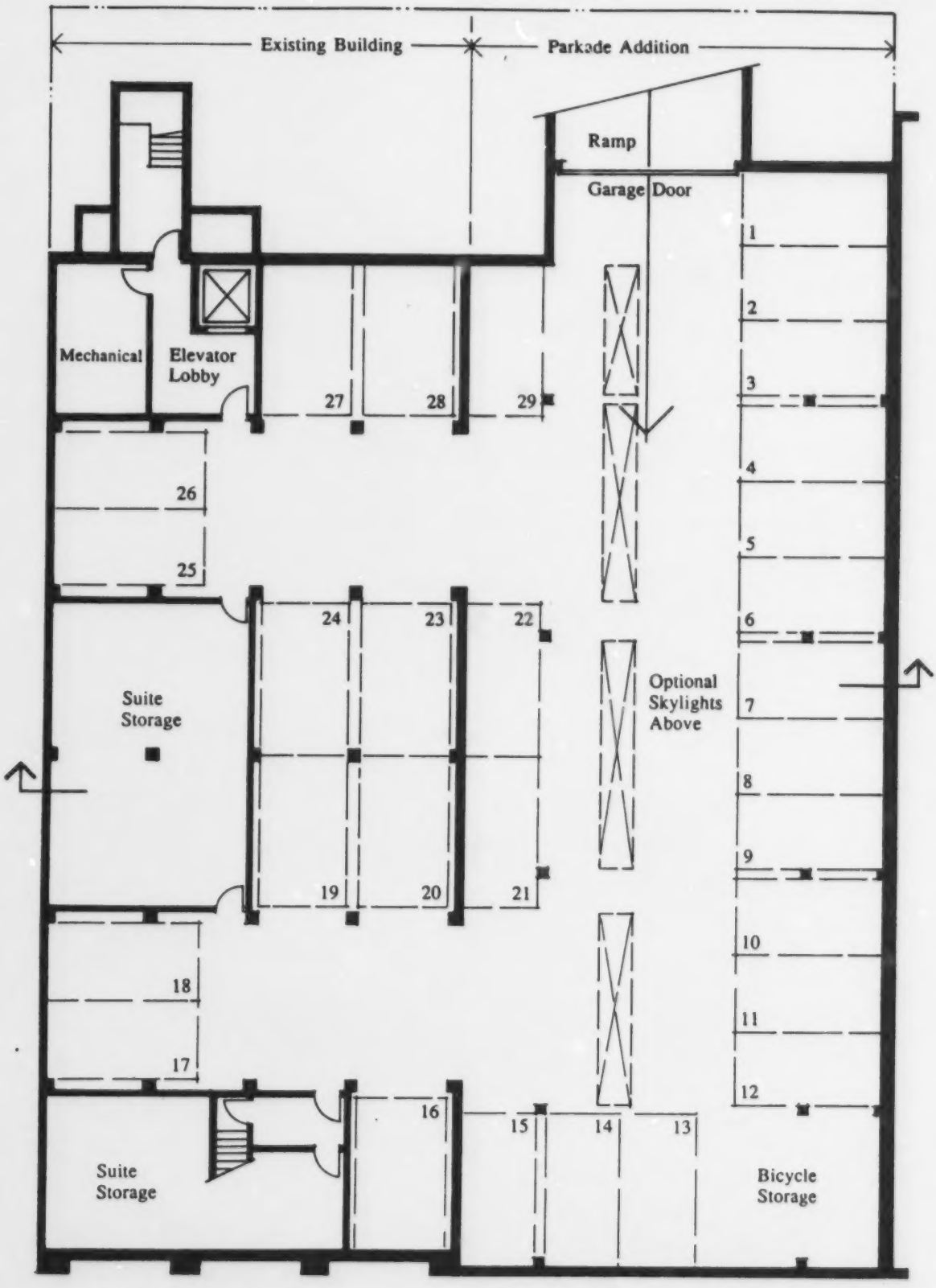

Figure 33: Proposed basement plan, showing enclosed parking.

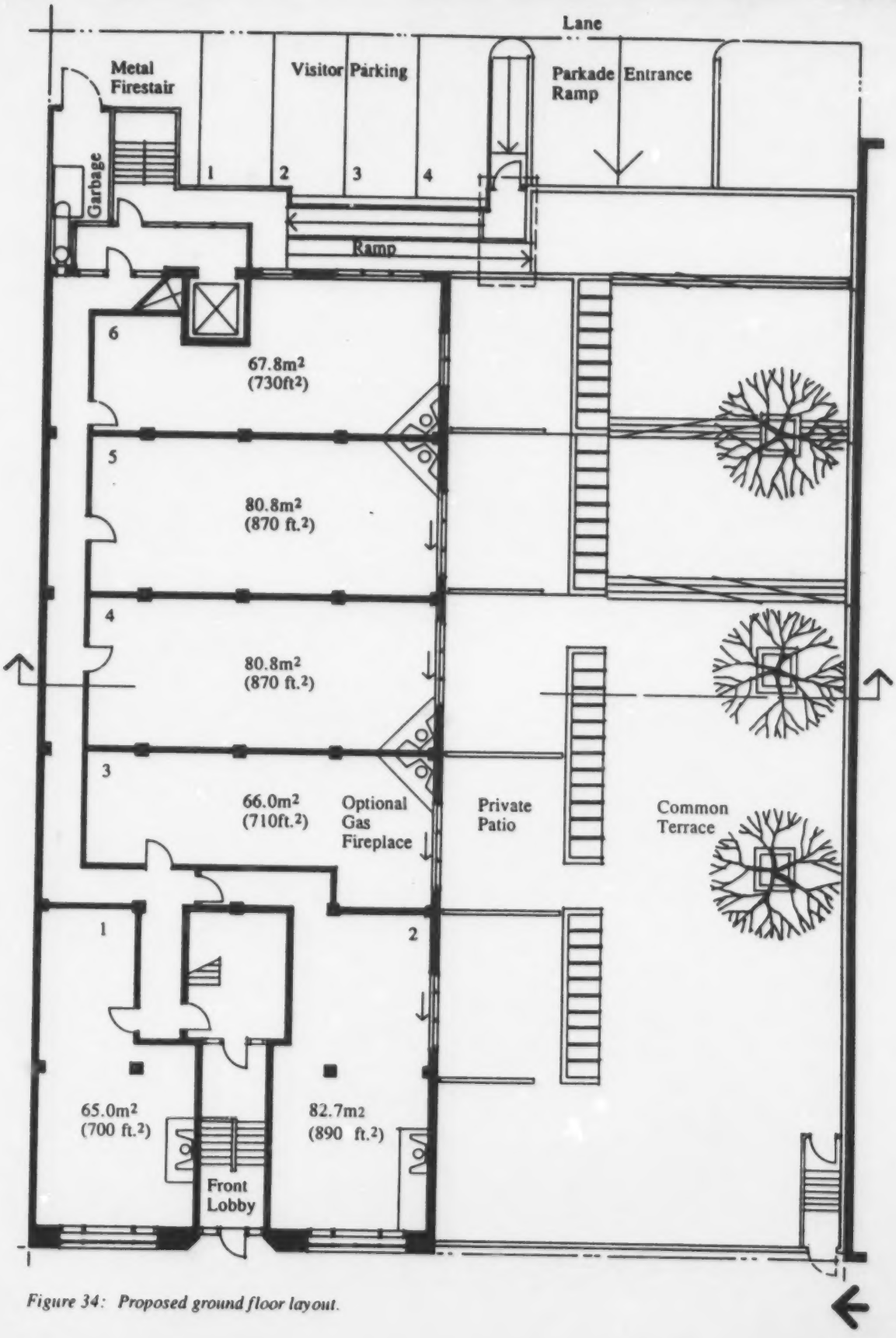

Figure 34: Proposed ground floor layout.

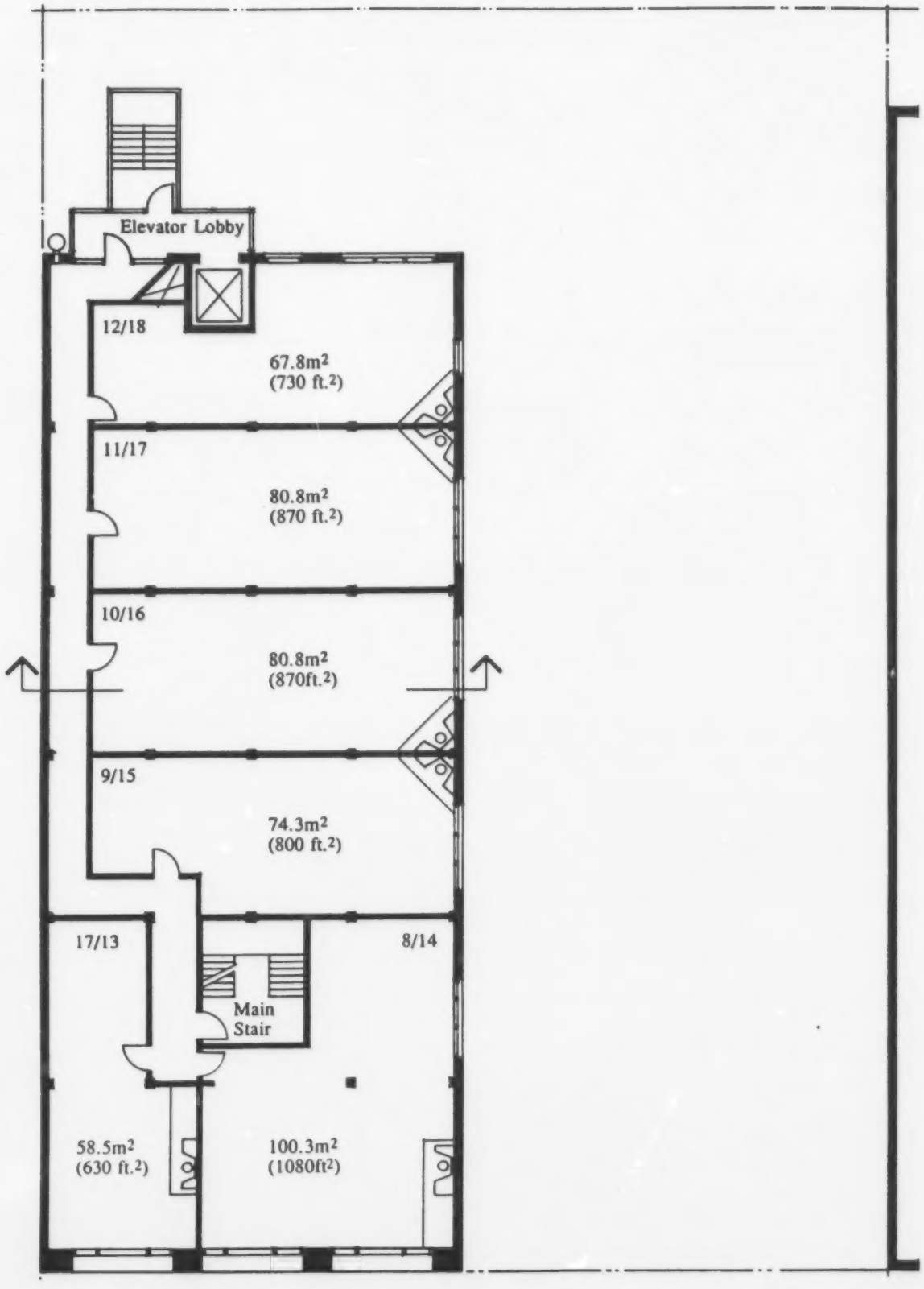

Figure 35: Proposed layout of the second and third floors.

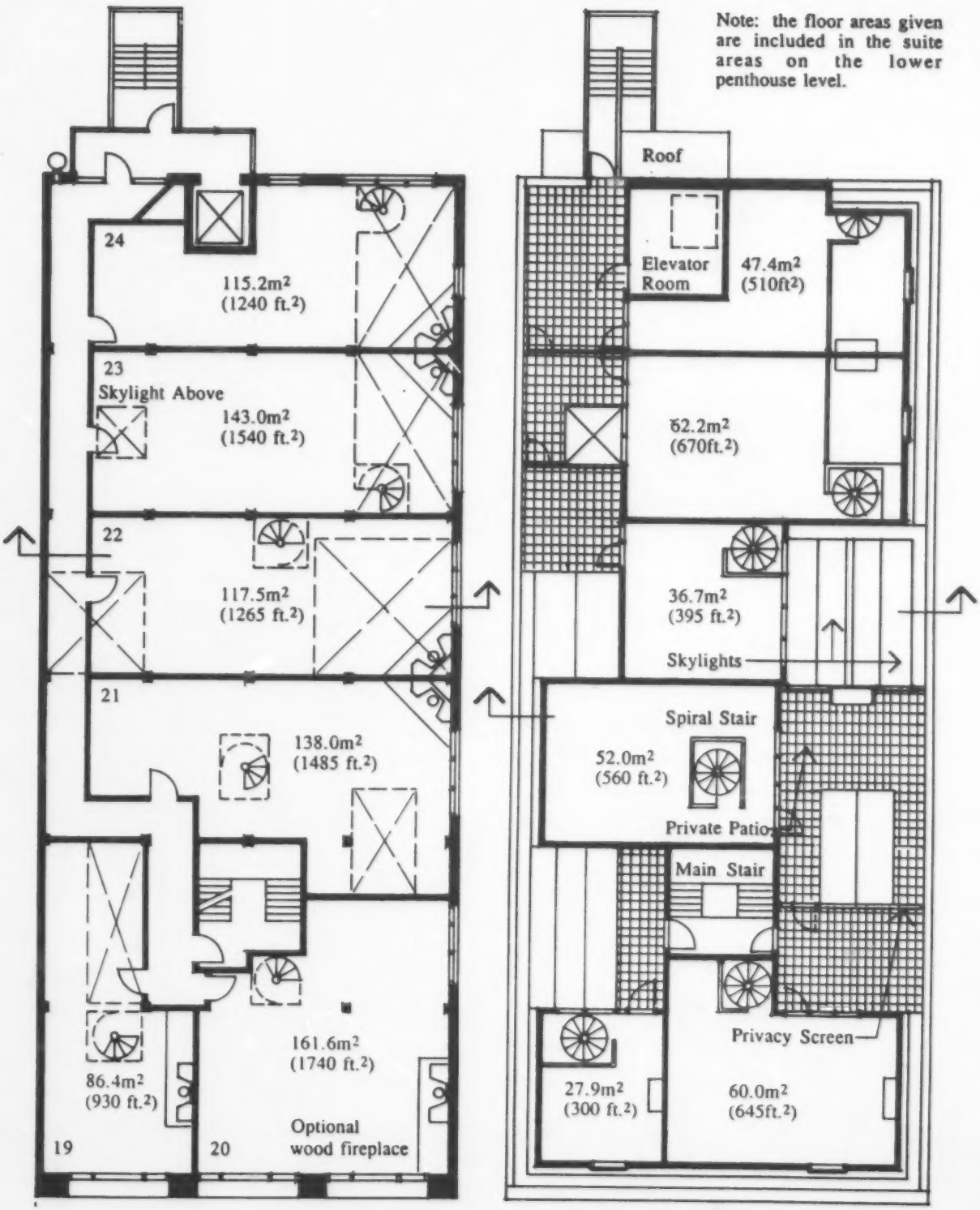

Figure 36: Proposed penthouse suites on the fourth and fifth floors.

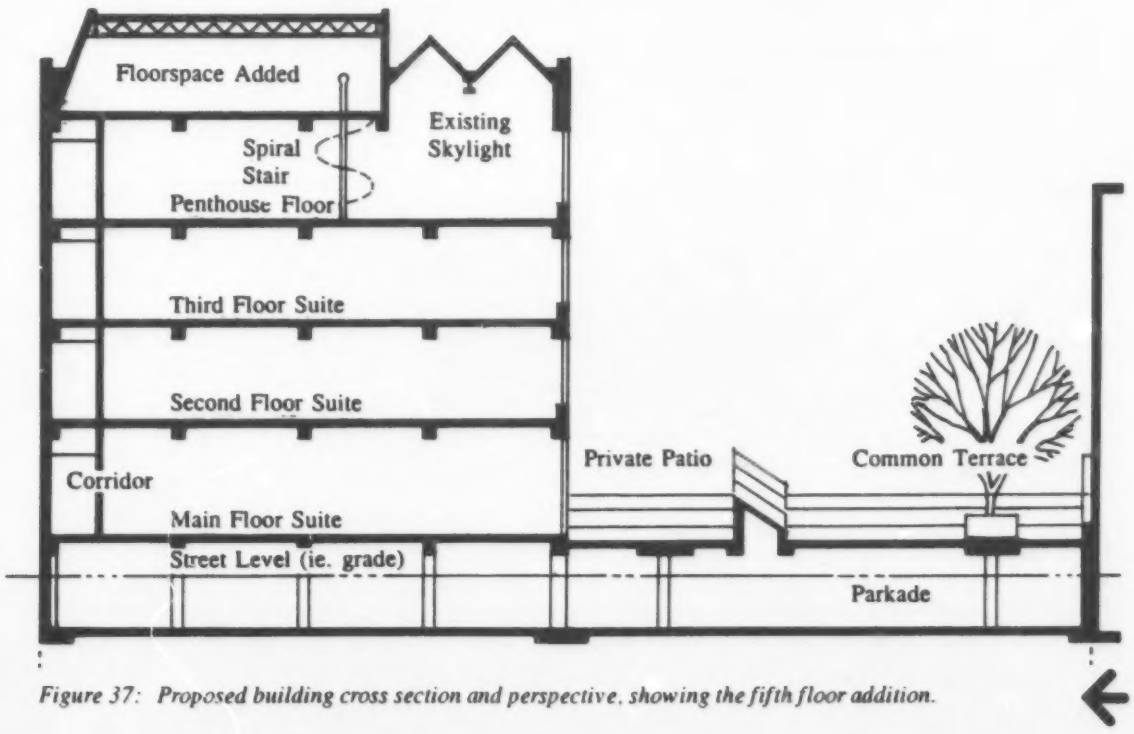

Figure 37: Proposed building cross section and perspective, showing the fifth floor addition.

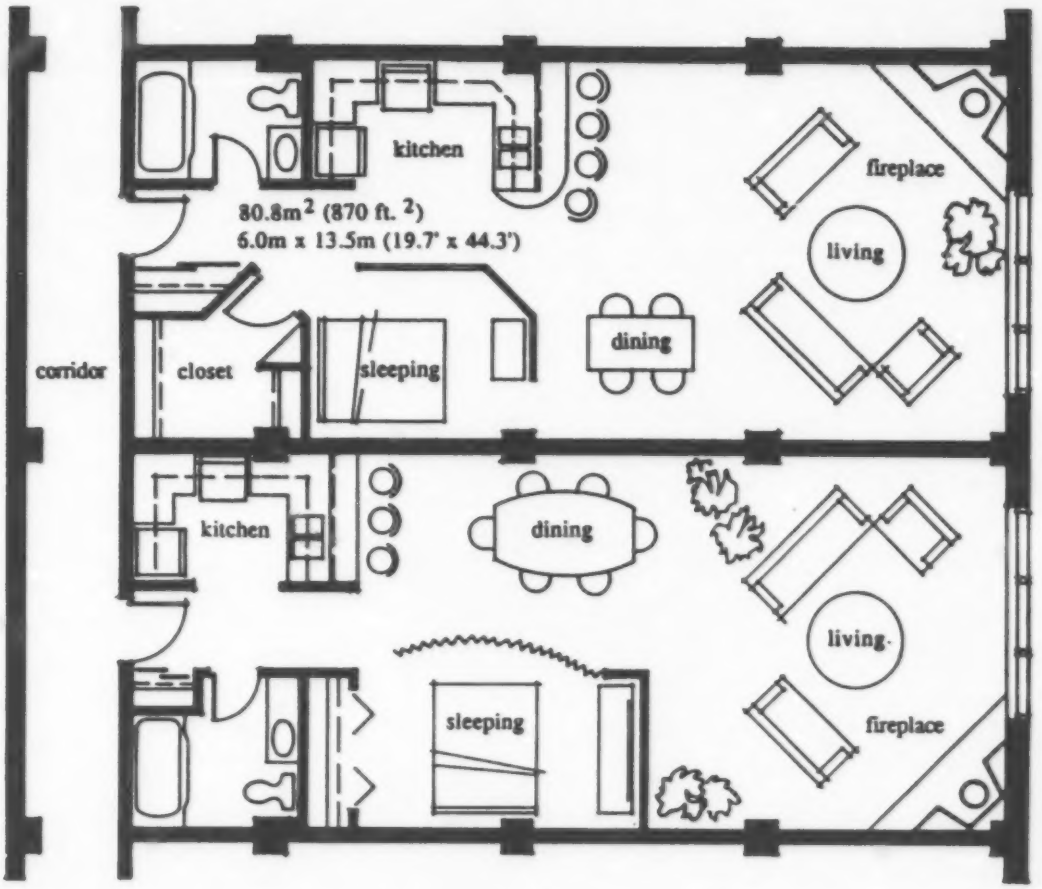

Figure 38: Examples of the ways in which suites can be developed by the purchaser.

Some of the features that can be highlighted about this design are as follows:

- the parking garage can be well lit with both skylights and standard lighting;
- the residents will have elevator access to every floor, including the parking level;
- visitor parking is available at the rear entrance;
- access to the building will be fully secured with entry gained by intercom;
- the majority of residents will enjoy south facing units;
- the residents will enjoy a large outdoor terrace fully secured from the street and lane;
- five ground floor units will enjoy outdoor private patios;
- all penthouse units will have a sheltered private outdoor patio at their second level; and
- four penthouse units will have the benefit of existing skylights; several will have two storey living areas.

7.3.2 Structural

The existing roof for this building will become the upper floor of the penthouse units and a new roof will be constructed over the new fifth floor. The construction materials to be used for this work will consist of structural steel framing for the superstructure, including open web steel joist roof construction. The roof diaphragm will consist of corrugated metal decking and a built-up roofing membrane insulated to the architectural requirements for this project.

At the foundation level, the existing concrete wall on the south side will be structurally reinforced in areas to be opened up to facilitate the flow of traffic between this area and the new proposed underground parking on the south side of the existing building. The proposed new parking structure will utilize cast-in-place concrete construction designed to the Alberta Building Code Regulations, 1990 Edition. The roof of this structure will be designed for an assembly occupancy load of 4.8 KPa. If this area was to be enclosed for use as retail space, the loading requirement for such a space would be identical, so that such a proposal could be readily accommodated.

7.3.3 Mechanical

Site services will be installed as follows:

- a new 150mm (6") water service to meet the requirements for domestic and fire fighting water;
- a new 150mm (6") sanitary storm sewer due to the increased sanitary drainage load;
- a new storm service will be provided to the property line as required by the City of Edmonton; and
- the natural gas meter will be upgraded to serve the higher gas load.

New fixtures will be installed throughout. New domestic water and drainage and vent piping will be installed. New roof drains will serve the new roof area of the fourth floor and fifth floor addition. Gas fired domestic hot water heaters in conjunction with a recirculation system will provide domestic hot water.

A new hot water heating system using a single copper tube boiler and two circulating pumps will provide heating water to baseboard radiation in each suite. Forceflow heaters will serve entrances. Unit heaters will serve the basement parking area and miscellaneous service spaces.

Individual residential ceiling mounted exhaust fans will ventilate each washroom respectively. Domestic rangehood exhaust fans will be provided in each kitchen. A corridor pressurization system using an indirect gas fired heating unit will pressurize the corridors to replace exhausted air. A direct fired make-up unit and exhaust fan controlled by a CO detection system will ventilate the proposed basement parking area. Air conditioning will not be provided.

A new sprinkler system served from a standpipe riser in or adjacent to each of the two stairways will serve each floor respectively. A 2 1/2 inch fire department connection will be provided adjacent to each stairwell. The fire pump will be located in the basement.

All domestic hot and cold water piping, heating water piping, and piping and ducts penetrating the exterior building envelope where condensation may occur will be insulated with jacketed fibreglass insulation.

Baseboard radiation will be controlled by low voltage thermostats and valves. An indoor/outdoor controller will reset the heating boiler control relative to the ambient temperature.

The fuel oil fired emergency generator will be served by a fuel oil day tank. Ventilation will be provided to maintain the space temperature within the generator room.

A garbage chute with ULC door and sprinkler head will also be installed.

7.3.4 Electrical

A new service will be installed. It will consist of an underground 800A, 120/208V 3 Phase 4W service from Edmonton Power existing network vault. Individual utility meters will be provided for each apartment and the house system.

New telephone service will be installed. Individual service raceway/cable will be provided to each apartment. Cable T.V. will be handled in a manner similar to telephone.

New entry and site lighting in character with the building will be installed. The parkade lighting will be two lamp high output fluorescent complete with wire guards. Attractive period stair and corridor lighting will be provided. Suite lighting will consist of outlet boxes with porcelain keyless lampholders for tenant supplied lighting.

Life safety lighting will consist of exit lights and emergency light throughout. A new diesel fired emergency generator (75 kW, 120/208V 3 and 4W) will be installed. The freight elevator and fire pump will be connected to emergency power.

A new single stage, supervised fire alarm system complete with battery back-up will be installed. Systems will consist of separate initiating zones for each corridor level, each stairwell, corridor pressurization unit, each level of sprinklers, all shafts (elevator and garbage), electrical room, emergency generator, fire pump, main sprinkler tree, etc. Zoning shall be as per the Alberta Building Code. Fire bells will be located in corridors. Fire Evacuation signals will be located in each apartment. Smoke alarms will be installed in each apartment. Design and installation will be in conformance with Alberta Building Code and CSA CAN-S524-M82 and verified per CAN-S537-82.

A new entry system consisting of an intercom in each unit and electrical strike at the front door and rear gate will be provided.

Each apartment will be roughed-in for receptacles, light switches, telephone and cable T.V. Party walls will include wall outlets. Outlets required on existing exterior walls will be accommodated by surface raceways.

7.4 Commercial Space — Another Development Option

Experience in loft housing developments elsewhere suggests that it is not wise to place commercial uses on the lower floors of a residential project. For this reason, the entire ground floor of the building is utilized for apartments. However, the roof of the new parkade is underutilized. It's roof deck must be designed for assembly structural loads. This would permit a retail use on top, so the feasibility of utilizing it for such a development was therefore explored.

Retail facilities require street frontage. Conversely, they do not lay out well and therefore do not rent well if their depth exceeds 18 metres (60 feet). This equates to 3 bays of the existing building. Accepting this as a maximum depth, and recognizing that the proposed windows in the side wall of the building have to be maintained in the second and third bays back from the street, a retail building of 210m^2 (2260 sq. ft.) could be erected in the configuration illustrated in Figure 39.

In this location in downtown Edmonton, triple net rental rates for retail space are presently in the order of \$54-75/m^2 (\$5-7/sq.ft.). At a 10% capitalization rate, this rental revenue would allow \$540-750/m^2 (\$50-70/sq.ft.) for construction and soft costs. It is not considered feasible to develop the proposed retail space for such a limited budget. Therefore, this option was abandoned.

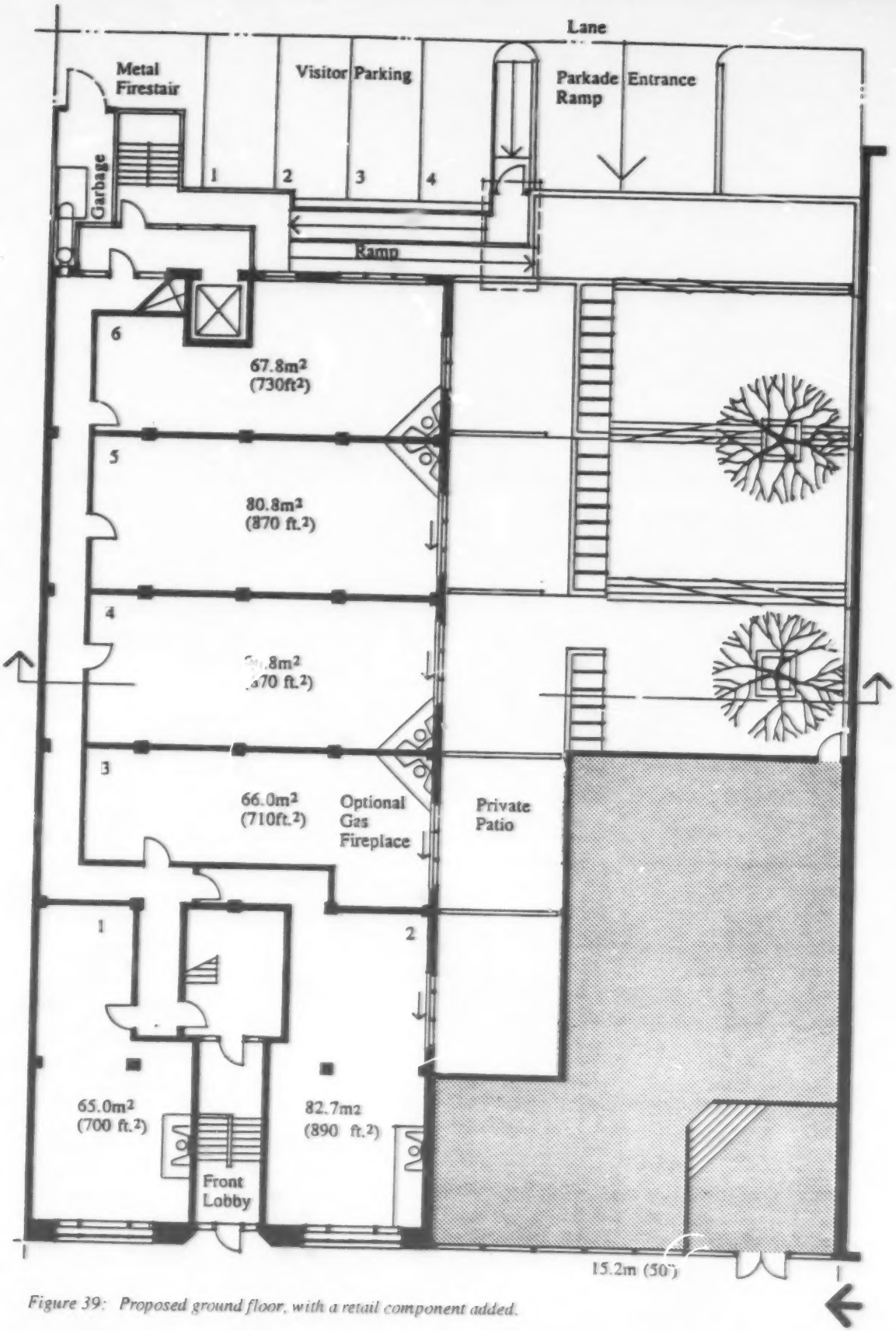

Figure 39: Proposed ground floor, with a retail component added.

SECTION EIGHT

FINANCIAL EVALUATION

8.1 Construction Costs

The proposed building renovations were submitted for cost estimating to two qualified companies. The first was Stuart Olson Construction Ltd., a large Edmonton based contractor currently handling two major renovation projects — the MacDonald Hotel and the Hudson's Bay Centre. The second was Barnett Treharne Yates, Quantity Surveyors, who likewise have past experience with major renovation projects. The products of their evaluations are included in this report as Appendices E and F. The estimate by Stuart Olson is somewhat lower than that of Barnett Treharne Yates, as one might anticipate. A contractor is typically estimating the lowest cost feasible to carry out the work. A quantity surveyor, with a more conservative attitude, is typically estimating more of a maximum upset price, or a cost which he is confident the project will not exceed.

The two estimates compare as follows (exclusive of GST):

- Stuart Olson Construction $1,237,000.00
- Barnett Treharne Yates $1,527,000.00

In examining the Stuart Olson estimate, it was the conclusion of the consultants that it was a "tight" estimate, accommodating a minimal scope of work, but not allowing for any unidentified or unanticipated costs. In two areas it was actually considered deficient:

- mechanical costs, at $189,174.00 were considered at least $160,000.00 low; and
- electrical costs, at $81,855.00 were considered low by $18,000.00.

To account for these items, the Stuart Olson estimate has been adjusted by the consultant team to $1,415,000.00. This works out to an average cost of $374 per m^2 ($34.80 per sq. ft.) on the gross building area, including the garage structure, or $664 per m^2 ($61.70 per sq.ft.) on the total net saleable area of the units.

8.2 Project Financing

8.2.1 Public Funding

The purpose of this study is to assess the feasibility of converting an older warehouse building to a loft residential project, with a view to stimulating the development of a successful project that will be a catalyst to further such development and the expansion of residential aspects in the downtown area.

In Section 5.4, Heritage Designation, modest Provincial funding assistance and City tax abatement policies were identified that are geared to the heritage merit of a building. Other forms of public grants, such as that utilized in the Ashdown Warehouse project in Winnipeg, were explored. No current program for funding housing that could be utilized for this project was uncovered at the federal, provincial, or municipal level.

Further, the City of Edmonton Non-Profit Housing Corporation was approached. They indicated that the costs projected for development of housing in the downtown area are higher than for accommodation they can obtain elsewhere in the city. On the other hand, their funding program gives them a degree of flexibility. For example, if a developer had proceeded in a project but was unable to market the last few units, the non-profit housing corporation could consider acquiring them (at discount prices) and in turn renting them out, perhaps to artists to help sustain them in the downtown area.

One other avenue explored was government funded co-operative housing. One such project was undertaken in Winnipeg, but funding was through the Manitoba Housing Corporation Co-operative HomeStart Program. The only co-operative program available in Alberta is through Canada Mortgage & Housing Corporation, but it is expected that its maximum unit price limits would preclude its application to a loft housing project.

8.2.2 Private Financing

Conventional funding for this type of project was reviewed with several major banks and mortgage brokers. Funding would likely be available, on the following terms:

- permanent mortgage funding at prevailing residential market rates,
- interim financing at 1/2 - 1% over prime rate[1] , likely with a fee of 1/4 - 1/2%; and
- presale of a significant percentage of the units required prior to advancement of interim financing, likely at a 35-50% level.

This precondition to the availability of financing pertains to the risk involved. Since conversion of an old warehouse building into a loft housing project has never been done before in Edmonton, it may be viewed by lenders as a high risk project. Discussions with lenders suggest that they will not want to advance financing unless a high level of presales can be first achieved.

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1 The prime rate at the date of writing is $10^{3}/4\%$. It is the forecast of at least one major bank that this will fall to 9% by the end of 1991 (Mr. Thomas Alton, President, Bank of Montreal Mortgage Corporation, April 19, 1991).

8.3 Projected Development Costs

The estimated development costs for the project are presented in Table 2. We have elected to use the lower estimate of construction costs provided by Stuart Olson Construction, as amended by the consultant team. An additional contingency amount of 10% is carried on top of this and is included in an overall 10% contingency allowance. Given the limited details on which the estimate was based, there is some margin for its further refinement. The contingency is intended to cover increased costs. Any savings realized will translate directly into an improved profit on the project. This should be kept in mind when considering the overall financial conclusions.

The development pro forma assumes a 1991 construction start. It also includes a long list of "soft costs" such as architectural and engineering fees, project management fees and financing fees. No allowance has been made for property taxes during construction; it has been assumed that the City of Edmonton would absorb this cost in accordance with its policies to encourage the renovation of historic properties.

Regarding interim financing, a conservative position has been adopted of a rate of prime plus 1%. Financing is assumed to be taken down in the latter part of 1991 and into 1992. therefore, to account for falling rates, an average rate of 10% is assumed. The renovation period is assumed to last ten months.

Building Renovation		1,170,000
Parkade Structure		245,000
Total Hard Costs		$1,415,000[1]
Architectural Fees:	10.75% on $1,170,000	126,000
	7.5% on $245,000	18,000
Project Management Fees	4% of total hard costs	57,000
Financing Fees	1/2% of total hard costs	7,000
Building Permit	$1,415,000 @ $5/$1,000	7,000
Property Taxes		0
Legal Fees		40,000
Consulting Fees		20,000
Marketing		20,000
Interim Financing	10% over 10 months	58,000
Contingency Allowance	10% of above items[2]	177,000
Total Upgrading Cost		$1,945,000

Table 2: Estimated development costs for renovating the H. V. Shaw Building into loft housing.

1 The comparable estimate from Barnett Treharne Yates is $1,527,000 (14% higher).
2 GST, where applicable, is covered in this amount.

8.4 Sales Revenues for a Condominium Project

Development revenues equate to the sum of the selling prices for all of the units. There are two very different ways of estimating the selling price of residential units in a proposed development. One is to ask people how much they are prepared to pay (the method used at the end of each focus group interview session); the other is to look at current selling prices of comparable projects.

While the first approach certainly gives some idea as to the perceived value of a project, the second method is probably more reliable, since it clearly shows what prospective buyers are doing as opposed to what they are saying. Obviously, the key to obtaining reliable selling price estimates with the second approach lies in finding good comparables.

Unfortunately, there are no good comparables for a loft housing project in the warehouse district. Based on extensive discussions with a local realtor specializing in condominium projects and on comments made by prospective purchasers, the two best comparables seem to be The Galleria (a low rise building located at 11220-99 Avenue) and LeMarchand Tower (a high rise tower located at 11503-100 Avenue).

Although very different in terms of size and building form, both projects are located in the Oliver area — the neighbourhood which accounted for 26% of the respondents to the newspaper advertisement for the proposed loft housing development. The next two sections review recent sales activity in these two projects.

8.4.1 Selling Prices: The Galleria

The Galleria is a ten year old brick building which has some of the exterior and interior design characteristics of a loft housing project. The four storey building is located within walking distance of the Government Centre LRT station.

The Galleria has a central atrium/elevator core and underground parking. Most of the larger suites have wood burning fireplaces, high ceilings in the dining room areas, ample in-suite storage space and two parking spaces.

During the first eleven months of 1990, the multiple listing service of the Edmonton Real Estate Board recorded seven sales in the Galleria. The upper portion of Table 3 which follows summarizes the pertinent information on these sales, which are listed in chronological order.

Selling prices ranged from a low of $70 per square foot for a ground floor unit which sold in January to a high of $106 per square foot for a third floor unit which sold in October. This wide discrepancy in prices can be attributed in part to changing market conditions and in part to variations in the quality of the suites themselves (some have been extensively refurbished). The average selling price of the seven units sold so far this year in The Galleria is $89 per square foot.

At the end of November, 1990 there were six units in The Galleria advertised for sale on the multiple listing service of the Edmonton Real Estate Board. The lower portion of Table 3 shows the size and asking price of each unit.

The asking price for these six units averages $100 per square foot. For the seven units sold so far this year, the discount between the asking price and the selling price was about

3%. Based on this figure, the average selling price for the units currently on the market at the Galleria will probably be about $97 per square foot.

Unit	Unit Size	Asking Price	Selling Price	
119	1,807 sq. ft.	$129,900	$127,000	($70 per sq. ft)
120	1,398 sq. ft	$107,500	$105,000	($75 per sq. ft.)
108	1,452 sq. ft.	$136,900	$133,000	($92 per sq. ft.)
301	2,625 sq. ft.	$275,000	$266,000	($101 per sq. ft.)
310	1,829 sq. ft.	$155,900	$150,000	($82 per sq. ft.)
107	1,452 sq. ft.	$135,900	$133,000	($92 per sq. ft.)
307	1,420 sq. ft.	$155,500	$150,000	($106 per sq. ft.)
317	1,194 sq. ft.	$123,900		
314	1,495 sq. ft.	$126,900		
101	1,420 sq. ft.	$129,900		
304	1,355 sq. ft.	$146,500		
306	1,420 sq. ft.	$149,900		
307	1,420 sq. ft.	$155,500		

Table 3: MLS Sales Activity in 1990 at The Galleria (source: Edmonton Real Estate Board).

8.4.2 Selling Prices: LeMarchand Tower

LeMarchand Tower is a nine year old high rise building located next to the historic Le-Marchand Mansion. The brick cladding on the tower and its association with the beautifully renovated old mansion give the high rise apartment building an historic image.

Most of the units have unobstructed south facing views over the river valley. Some units have hardwood floors and fireplaces. Parking is underground with two spaces allocated to the larger suites.

During the first eleven months of 1990, the multiple listing service of the Edmonton Real Estate Board recorded four sales in LeMarchand. The upper portion of Table 4 which follows summarizes the pertinent information on these sales, which are once again listed in chronological order.

Selling prices ranged from a low of $124 per square foot for a unit on the 11th floor which sold in February to a high of $165 per square foot for a unit on the 12th floor which sold in January. Whereas selling prices at The Galleria showed a discernible upward movement throughout the year, no such trend is apparent at LeMarchand, where the average selling price in 1990 was $141 per square foot.

At the end of November, 1990 there were three units in LeMarchand Tower advertised for sale on the multiple listing service of the Edmonton Real Estate Board. The lower portion of Table 4 shows the size and asking price of each unit.

Unit	Unit Size	Asking Price	Selling Price	
508	1,393 sq. ft.	$175,900	$176,100	($126 per sq. ft)
1202	2,027 sq. ft.	$339,000	$335,000	($165 per sq.ft.)
1101	1,474 sq. ft.	$179,900	$183,000	($124 per sq. ft.)
704	1,392 sq. ft	$199,800	$192,000	($138 per sq. ft.)
1401	1,474 sq. ft.	$189,900		
703	2,055 sq. ft	$246,900		
1703	2,061 sq. ft.	$259,900		

Table 4: MLS Sales Activity in 1990 at LeMarchand Tower (source: Edmonton Real Estate Board).

The asking price for these three units averages $125 per square foot. For the four units sold so far this year, the discount between the asking price and the selling price was a mere 1%. Based on this figure, the average selling price for the units currently on the market at LeMarchand will probably be about $124 per square foot.

8.4.3 Selling Prices: Other Buildings

The Oliver area contains a large number of condominium apartment buildings, both low rise and high rise. The typical low rise condominium is a three storey frame building with underground parking, built about ten years ago. Units with any significant views are extremely rare. Some units have air conditioning and/or fireplaces. Selling prices in most of these buildings currently range between $75 and $90 per square foot.

The typical high rise condominium is a fifteen storey building with underground parking, built about twelve years ago. Many units have views over the river valley. Selling prices in most of these buildings currently range between $90 and $110 per square foot.

To some extent, these prices reflect the age of the building. As a general rule, newer buildings command higher prices than older ones. As an example of this 'age premium', selling prices at the Riverwind, the latest Edmonton highrise project on Saskatchewan Drive in Old Strathcona, currently range between $130 and $160 per square foot.

8.4.4 Selling Prices and Net Sales Revenue for the H. V. Shaw Building Units

As has been noted, the above are not really good comparables for determining selling prices for a loft housing project in the warehouse district. The closest comparable is The Galleria. As Table 3 showed, sales in this project in 1990 have averaged $89 per square foot; excluding two 'distress sales' early in the year raises the average selling price to $95 per square foot. Two sales were reported in the $100 and $110 per square foot range.

A significant number of prospective purchasers interviewed by the consultants indicated a willingness to pay a premium in order to obtain a loft housing unit. Almost all prospective purchasers also indicated that they wanted to buy 'shell space' and finish it themselves (albeit with varying degrees of assistance from the developer).

It is the recommendation of this report that if the project is marketed as a condominium, the units should be sold on a bare shell basis. With this absolute minimum level of interior finishing in mind, we believe that the following selling prices can be achieved in 1991 — assuming, of course, that the Edmonton area economy remains reasonably healthy:

— $90-$100 per square foot for the small streetfront ground floor unit;
— $100-$110 per square foot for the ground floor units with patio gardens;
— $110-$120 per square foot for mid floor units; and
— $130-$140 per square foot for penthouse unit.

The prices include one underground parking stall per unit, except for penthouse units, where two are included.

For the purpose of this financial analysis, it has been assumed that units will sell at the midpoint of the price ranges identified above. Based on these average selling prices, gross sale proceeds will amount to $2,746,000 (see Table 5). Deducting selling costs, estimated at 4% of gross revenues, reduces the sales revenue to $2,636,000.

One other consideration has been factored into these revenues — the cost of carrying the project during the latter portion of the sales period. It has previously been identified in the section on project financing that, due to the high degree of risk of the project, neither a developer nor a lender will want to proceed with the loft housing project unless a high level of presales (probably at least 50% of all units) can be achieved. This initial period of sales is projected to take anywhere from six to nine months. During this time, no cost for outside financing by the developer has been attributed to the project. During the construction period, sales would continue. Costs of financing the project during this period have been covered under the projected development costs in Section 8.3.

Given the size of the project, the construction/renovation period will probably last from nine to twelve months. With a reasonably healthy real estate market, it should be possible to sell the remaining 50% of the units during the construction period. However, to be on the safe side, a pro forma should probably be based on the assumption that the project will not be sold out until after completion and that sale of some units will not close until one month after completion. An allowance to cover this is provided in the form of one additional month of interest on the project. Deducting carrying costs of the project for a period of one month after completion will then leave net sales proceeds of $2,620,000 (see Table 5).

Revenue:	Ground Floor:	1 front unit	700 sq. ft. @ $95	$66,500
		5 patio units	4,070 sq. ft. @ $105	427,350
	Mid Floors:	12 units	9,960 sq. ft. @ $115	1,145,400
	Penthouses:	6 units	8,200 sq. ft. @ $135	1,107,000
Gross Sale Proceeds			22,930 sq.ft @ $120 (av.)	$2,746,000
Less Selling Costs			4% of gross sale proceeds	$110,000
Sale Proceeds after Commission				$2,636,000
Less Carrying Costs (post construction)			$1,776,000 @ 10^{3}/4% @ 1 month	16,000
Net Sale Proceeds				$2,620,000

Table 5: Projected sales proceeds for the H. V. Shaw Building as loft housing.

8.5 Revenues from a Rental Project

In order to determine the feasibility of the rental option, a survey of rental rates in apartment buildings which are located in or near the warehouse district was undertaken.

8.5.1 Rental Rates: Nearby & Comparable Buildings

In order to determine the rental rates that could be charged for loft housing units in the warehouse district, a survey of several rental apartment buildings was undertaken by the consultants. The buildings surveyed were either located in the study area or had a historic character somewhat similar to that which would be provided in a warehouse conversion project.

There are only two residential developments (both rental apartments) in the study area: the 227 Hillsborough Place high rise on 109 Street just north of Jasper Avenue, and the 46 unit El Mirador low rise on 108 Street also just north of Jasper Avenue.

At Hillsborough Place, rental rates currently range from a low of $550 per month for a one bedroom apartment to a high of $805 per month for a three bedroom apartment. The average rental rate for the building as a whole is approximately $0.70 per square foot per month. Underground parking costs $35 per month.

According to the building manager, vacancy rates are usually very low (five units or less). In January, 1991, however, Hillsborough Place had 14 suites for rent and a vacancy rate of 6.2% — far above the corresponding figure for the Edmonton area as a whole (1.8% in October according to CMHC). The building manager reported that several tenants had moved out in recent months as a result of a rent increase and because of plans to try and convert the project to a condominium development.

At the El Mirador, a much older building, the rental rate for a one bedroom apartment is $420 per month (approximately $0.60 per square foot per month); one bedroom units account for 35 of the 46 units. The building manager reports that two suites were currently available for rent as of January 1, 1991.

Moving outside the boundaries of the study area, two older rental projects have been surveyed; the General Apartments at 11020-100 Avenue and the Arlington at 10524-100 Avenue. Both projects have an historic look (inside and out) which makes them comparable in some respects to an old warehouse building.

Located across the street from its namesake hospital, The General Apartments is a small (16 units) three storey walk up with an art deco style brick exterior. The building has been extensively renovated; the suites have new kitchens and new bathrooms, quarry tile kitchen floors and oak hardwood floor in the main rooms. A limited amount of unsecured surface parking is available at the back of the building.

According to the building manager, rental rates at the General for a typical one bedroom and den unit of about 800 square feet range between $600-675 per month (about $0.80 per square foot per month). Outdoor parking costs $25 per month. There were three suites for rent as of January 1, 1991.

The Arlington is a five storey brick building which has not been as extensively renovated. The 47 unit building is adversely affected by heavy traffic on 100 Avenue. Like the

General, the Arlington has a limited amount of unsecured surface parking at the back of the building.

According to the building manager, one one bedroom suite and one two bedroom suite were available for January 1, 1991. The rental rate is $450 per month for the one bedroom unit and $550 per month for the two bedroom unit. Outdoor parking costs $45 per month.

As a final comparable, it should be noted that several of the strata titled apartments in The Galleria have been rented. According to one realtor familiar with the project, rental rates for the 1,200-1,400 square foot one bedroom units in the building are currently as high as $1,200 per month (ie. approximately $0.90 per square foot per month).

In summary, the results of a survey of apartment buildings located in the general vicinity of the warehouse district provided the following rental information:

- an average rental rate of about $0.70 per square foot per month at Hillsborough Place;
- an average rental rate of about $0.60 per square foot per month at the El Mirador;
- an average rental rate of about $0.80 per square foot per month at The General; and
- rental rates as high as $0.90 per square foot per month at The Galleria.

Based on this admittedly limited data base, rental rates of between $0.90 - $1.00 per square foot per month (plus parking) should be achievable in a loft housing project a year from now. These rental rates, it should be pointed out, apply to fully finished suites.

According to CMHC, the Edmonton area rental apartment vacancy rate stood at a mere 1.8% in October of 1990. With no significant easing of the market in sight, it should be possible to rent up a 24 unit loft housing project in the warehouse district within two or three months of completion, at current rental rates.

8.6 Financial Conclusions

The financial analysis presented in this section of the study examines firstly the residual profit that the present owner of the H. V. Shaw Building could reasonably expect, if the building were to be converted to loft housing and marketed as a condominium project. It next addresses the position a developer might face if he were to acquire the property for the same purpose. Finally, a rental project is compared to the condominium form of tenure to determine which provides a higher return to the owner/developer.

8.6.1 The Condominium Option

Net sales proceeds were projected in Section 8.4 to be $2,620,000. From this revenue must be deducted the total cost of upgrading the building to create the loft housing, estimated in Section 8.3 to be $1,945,000. This leaves a residual amount of $675,000.

The present owner has stated that the property was acquired in 1988 for $43 per sq. ft., which would equate to a total value of $645,000. Deducting this from the residual amount would leave the owner with a modest gain of only $30,000. However, it must be remembered that this evaluation is based on a preliminary set of numbers; the findings for the H. V. Shaw Building do not provide a final answer for the feasibility of redeveloping this building. Successful real estate development projects are the result of continuously refining options to an ultimate optimization of revenues and minimizing of costs, which the scope of this study did not fully permit. Therefore, the final pro forma may show a much more financially attractive result than is presently projected.

As well, an important consideration to be recognized in evaluating the feasibility of such a project is the fact that these older properties typically suffer from a negative cash flow, as might be expected, given the low rental revenue that they garner compared to their high operating costs. Loft housing is seen as the current "highest and best use" of these properties when compared to other forms of redevelopment, or to their present use. For the present owners, therefore, it may be an attractive option to redevelop and sell their building as loft housing units, even at a modest gain, in order to terminate an existing negative cash flow.

Another option for any present owner to get out of a negative cash flow would be to sell the property. However, a purchaser would only be prepared to buy at a price that would be profitable for him, either rented as is or redeveloped and rented or sold. For the present rental situation, it is not expected that a purchaser would be prepared to pay the price the present owner paid in 1988 and assume the negative cash flow. However, for the option of conversion to loft housing condominiums, a developer could be expected to explore the proposed design and construction in much greater detail in an attempt to increase anticipated sales revenues and decrease expected development costs, as mentioned above. His degree of success in this regard, combined with the profit he wished to realize from the project, would determine what residual value he would place on the land and be prepared to pay for it.

8.6.2 The Rental Option

In our opinion, a rental project would have to generate an equal or higher sale value than a condominium development, to justify this form of marketing for a loft housing project. For the purpose of doing this financial comparison, it has been assumed that units will rent at the midpoint of the price range identified in Section 8.5 of this report — namely $0.95 per square foot per month. Underground parking is expected to rent for $50 per month.

Based on these two figures, gross rental income from a typical 600 square foot one bedroom unit will amount to $12.40 per square foot per annum. According to local apartment building managers, operating costs for a small (less than 50 unit) project will amount to between 35 and 40% of gross rental income. Using the lower end of this range, net operating income for a rental loft housing project is estimated at $8.06 per square foot per annum.

According to local commercial brokers, capitalization rates for most smaller rental apartment buildings in the Edmonton area currently range between 8 and 10%. Based on an 8% capitalization rate, a rental loft housing project could be sold for $101 per square foot — significantly less that the $120 per square foot average selling price (net of real estate commissions and carrying costs) under a condominium tenure.

Given a lower project value and a higher development cost (under the rental option, units would have to be completely finished inside — an additional expense not included in Table 2), the residual value of a rental project will be significantly lower than the residual value for a condominium project. In fact, a rental project worth $101 per square foot and costing an extra $15 per square foot to complete (a very modest budget for interior finishes) will have a negative residual value.

Given this conclusion, we would recommend that the idea of marketing a loft housing development as a rental project be abandoned.

8.6.3 Conclusions and Recommendations

The following are the conclusions of this study regarding the financial aspects of the future use of properties containing older warehouse buildings suitable for conversion to loft housing in the downtown area of Edmonton.

- The study found that conversion to loft apartments on a condominium basis is possible, but is not particularly attractive from an economic point of view in the case of the H. V. Shaw Building, which was analyzed in detail.
- These buildings are generally operating at a negative cash flow for their present owners.
- Loft housing is the highest and best present use for the properties.
- Condominium sale will provide a better financial picture than a rental project.
- The development costs, when measured against projected sales revenues, do not leave an attractive profit for a developer if, for example, he were to pay the present owner of the Shaw Building his cost for the site, ($645,000.00 or $43.00/square foot); the property would likely have to be purchased at a discounted price but this may be a more attractive alternative to a present owner than retaining a property with a negative cash flow.
- Alternately, a condominium loft housing project may prove practical for a present owner, even if the return on investment is very limited, as a means of relieving the owner of an existing negative cash flow.
- It must also be remembered, as noted in Section 8.3, that the construction cost estimate is a preliminary one and if costs are reduced, the project will enjoy a corresponding improvement in profits.
- Superior sales revenues may also be realized, making the project much more attractive from a profit point of view; every dollar gained from increased sales proceeds is profit in the pro forma presented.
- Only one property was analysed in detail; other properties may prove to be more economical to redevelop or provide a higher percentage of net saleable space than the H. V. Shaw Building, thus producing a more financially attractive project.

SECTION NINE

IMPLEMENTATION STRATEGY

9.1 The 'Lighthouse' Project

Following is a summary of the major recommendations resulting from this study which should be addressed in order to satisfy the original objective of the study; that is, to stimulate the development of a "lighthouse" conversion project which would in turn lead to the growth of a strong residential population in Edmonton's warehouse district

- The conclusions and recommendations of this study must be approved and adopted by the Board of Directors of the Edmonton Downtown Development Corporation (EDDC).
- The appropriate departments of the City of Edmonton should be approached to determine what measures they are prepared to take in order to preserve the historic character and identity of the warehouse district. This is in direct reference to the possibility of receiving property tax relief under the existing "Policy to Encourage the Designation and Rehabilitation of Municipal Historic Resources in Edmonton".
- Streetscape improvements which would enhance the development of a residential environment in the warehouse district should be implemented by the City of Edmonton in accordance with the timeframes and objectives originally set out in the Downtown Area Redevelopment Plan prepared in 1985.
- Discussions should be initiated with the Alberta Historical Resources Foundation to seek support for appropriate levels of funding under the Historic Resource Preservation program for buildings which are primary candidates for conversion.
- The Edmonton Downtown Development Corporation should take a lead role in soliciting interest from qualified developers who may wish to pursue the concept. Also, owners of warehouse buildings which are deemed suitable for conversion should be approached as a condominium loft project could prove attractive as a means of relieving the owner of an existing negative cash flow.

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APPENDICES

APPENDIX A

Demographic Profiles of the Respondents to the 1990 'Edmonton Journal' Advertisement.

No.	Current Housing	Household Size	Occupation	Postal Code	Age Group	Sex
1.	Rent - Apartment	2	Sales	T6E 4T3	40-49	M
2	Rent - Apartment	2	Accountant		40-49	M
3	Own - Apartment	2	Auditor	T5E 3B8	20-29	M
4	Own - Townhouse	1	Accountant	T8N 1Y6	40-49	F
5	Own - House	1	Interior Designer	T5N 0K7	50-59	F
6	Rent - Apartment	3	Student	T5K 2G3	20-29	F
7	Own - House	2	Investment Mgr.	T5N 0S3	40-49	F
8	Rent - House	2	Student		20-29	F
9	Rent - Apartment	2	Therapist	T5K 4H6	20-29	F
10	Own - Apartment	2	Systems Manager	T5T 1T1	40-49	F
11	Rent - Apartment	1	TV Announcer	T5K 2G5	30-39	M
12	Own - Apartment	1	Professor	T5K 2E5	40-49	M
13	Rent - House	3	Contractor		20-29	M
14	Own - Townhouse	1	Planner	T6L 2R9	40-49	F
15	Rent - Apartment	2	Interior Designer		30-39	F
16	Rent - Apartment	2		T5K 2P8	40-49	M
17	Rent - Apartment	1	Interior Designer	T6E 4J5	20-29	F
18	Rent - House	1	Administrator	T6A 1C3	20-29	F
19	Own - Townhouse	2	Teacher	T6K 1V6	20-29	M
20	Own - House	2	Engineer	T5K 0V4	20-29	F
21	Rent - Apartment	1	Sales	T5K 1K6	30-39	M
22	Rent - Apartment	1	Company Owner	T5J 3G2	40-49	M
23	Rent - Apartment	1	Sales	T5K 0R9	20-29	F
24	Own - House	3	Secretary	T0C 1E0	40-49	F
25	Own - Apartment	2	Retired	T5H 4E7	50-59	M
26	Own - House	3	Retired	T6R 1W2	50-59	M
27	Rent - Apartment	1	Doctor	T6G 1S1	20-29	M
28	Own - House	2	Systems Analyst	T0G 0B0	30-39	M
29	Own - Apartment	2	Store Owner	T5H 4B6	30-39	F
30	Rent - Apartment	2	Financial Officer	T5K 2N1	40-49	M
31	Rent - Townhouse	2	Secretary	T5T 3R5	40-49	F
32	Own - House	1	Club Director	T5H 3P1	60+	M
33	Rent - Apartment	2	Self Employed	T5T 3S9	20-29	M
34	Own - House	3	Realtor	T6J 5E9	30-39	M
35	Rent - Apartment	1	Secretary	T5H 1X7	20-29	F
36	Own - Townhouse	4	Civil Servant	T5E 1C4	40-49	M
37	Rent - Apartment	1	Architect	T5K 2L8	20-29	F
38	Rent - House	3	Teacher	T6E 6C6	30-39	F
39	Rent - Apartment	2	Lawyer	T6R 2M4	30-39	F
40	Own - House	2	Teacher	T6G 1Y5	30-39	F
41	Own - Apartment	1	Manager	T5K 2M9	30-39	M
42	Rent - Townhouse	1	Graphic Designer	T5K 0H9	30-39	F
43	Own - House	4	Sales	T5L 2N5	30-39	M
44	Rent - Apartment	2	Teacher	T5J 3M5	30-39	M
45	Rent - Apartment	1	Self Employed	T5K 2N1	30-39	F

46	Own	-	Townhouse	3	Sales	T5A 1G6	30-39	F
47	Rent	-	Apartment	1		T5K 0E4	30-39	M
48	Own	-	House	4	Office Assistant	T5N 1X3	40-49	F
49	Rent	-	House	4	City Employee	T6K 2G8	30-39	M
50	Own	-	House	2	Sales	T6E 1K1	40-49	M
51	Rent	-	Apartment	1	Lawyer	T5K 2N3	30-39	M
52	Rent	-	Apartment	1	Sales	T5N 3X7	20-29	M
53	Own	-	House	4		T8N 0A5	30-39	F
54	Rent	-	Apartment	1	Dietician	T0A 2C0	20-29	F
55	Rent	-	Apartment	2	Personnel Manager	T6G 2C6	40-49	M
56	Rent	-	Apartment	2	Welding Inspector	T5E 0X2	30-39	M
57	Own	-	House	2	Dental Hygienist	T5N 2C5	20-29	F
58	Own	-	House	2	Policy Analyst	T6A 2P4	20-29	M
59	Rent	-	House	3	Sales	T8A 3T5	30-39	F
60	Rent	-	Apartment	1	Civil Servant	T5N 0L1	30-39	M
61	Own	-	Apartment	2	Sales	T5H 0M9	20-29	M
62	Rent	-	House	3	Art Gallery Owner	T5J 0Z9	20-29	M
63	Rent	-	Apartment	1	Architect	T6E 1S3	40-49	M
64	Rent	-	House	2	Self Employed	T6C 1E6	20-29	M
65	Own	-	House	2	Teacher	T6L 4B8	40-49	F
66	Rent	-	Apartment	2	Lawyer	T5K 2P8	20-29	M
67	Rent	-	Apartment	2	Tax Assessor	T5J 3A5	20-29	M
68	Own	-	Apartment	3	Tourism Operator	T0E 1E0	30-39	M
69	Own	-	House	2	Restaurant Owner	T5K 1N4	30-39	M
70	Own	-	Townhouse	2	Self Employed	T6K 1V6	40-49	F

APPENDIX B

Credit Foncier 1963 Evaluation of the H. V. Shaw Building

PLAN OF LAND AND BUILDINGS

EACH SQUARE REPRESENTS 5 FEET

REFERENCES: - STREETS AND CONCRETE MUST BE TRACED OUT IN BLUE, TREES IN YELLOW, BUILDINGS IN RED, FOR REVISED DOUBLE TRACE IN PURPLE SHADES.

GENERAL INFORMATION

Nature of district: Commercial

Is the security advantageously situated? Yes

Distance to centre of city: 5 M blocks

Are there any recessions in the district? No.

Would it rent easily if vacant? Yes.

If new construction: (Photograph or Plans herewith)
Lot bought in ... for $
Estimated cost of buildings $
TOTAL COST $
To be offered for sale at $

Is it likely to increase in value? Should remain firm.

Roadway: Paved. Sidewalks: Concrete

Has the district a good renting record? Yes

If recent connections: (Photograph herewith) Photo sent with ... if any required in ... our letter of Feb.22/63

Following improvements carried out since: Con

Have you satisfied yourself that the property herein described is that mentioned in the application and that the buildings are entirely within the limits of the property?

BUILDING DIVIDED AS FOLLOWS
(Use Abbreviations: L.B. S.B. O.B. etc.)
Basement: Heating plant, twin boilers, hot water tank & washroom.
1st Floor: Offices, washrooms, display area, shipping department.
2nd " Offices & washrooms, storage & conference room.
3rd " Offices & washrooms, envelope factory.
4th " Storage.

SALE VALUES

PRESENT MARKET VALUE	$ 335,000.00
FORCED SALE VALUE ON CASH BASIS	$ 210,000.00
FORCED SALE VALUE ON CREDIT TERMS BASIS	$ 225,000.00
ASSESSMENT VALUE - 1963	
LAND AT $ 375.00 PER FOOT FRONTAGE	$ 30,000.00
BUILDINGS AT [illegible]	$ 45,000.00
TOTAL	$ 75,000.00

DESCRIPTION OF BUILDINGS

	DESIGNATED AS BUILDINGS	MEASUREMENTS OF BUILDINGS					MATERIAL OF CONSTRUCTION						MIXED FARM AND BUSINESS								
A	Cold Storage Building	40	50	170	4	Cut Stone	Built-up tar & gravel	Brick	Brick	Reinforced Concrete.	1	Fire	1914	Good	Fire	Good: Expensive	Value $ 6,000.	Yes	-	7	7	-	Heavy
B																							
C																							
	PRESENT STATE OF REPAIR						A																
							B	G	G	C	D												
							C																

STATEMENT OF REVENUES AND CHARGES

	INVESTMENT		ANNUAL RENT		TAXABLE	ANNUAL AMOUNT	REVENUE		NO. OF THE LOT	DIMENSIONS OF LOT	TOTAL AREA	NET FRONTAGE	VALUE		BUILDINGS	VALUE	TOTAL VALUE
A	[illegible]		24,550	24,550		3,500	GROSS RENTAL REVENUE	24,550	146,147	100.1	150	50'9.5	750.	75,000			
	Lease for 5 years net net Lease					1,000	OTHER INCOME	4,550	4-17*6								
							NET REVENUE	20,000	148.				(875,127.50)				
			24,550	24,550		4,550	MORTGAGE PAYMENTS	-									
													TOTAL	75,000			

| | | | | | | | | | | | | | | | | | | |

LOCATION: The WILLSON STATIONERY BUILDING is located on the east side of 105th Street between 102nd and 103rd Avenues. This is 5½ blocks from the city's business hub at intersection of Jasper Avenue and 101st Street. From our office building it would be 2 blocks north, and two blocks west.

105th Street is a paved main north - south thoroughfare of increasing importance due to recently constructed four lane overpass crossing C.N.R. main line two blocks north and also due to direct route to south Edmonton by way of the 105th Street bridge.

At the present time the immediate area is going through a transition phase. Warehousing and distributorships generally are in the process of moving to new suburban developments and new developments will result as city central retail and office area expands.

The trend is established and new construction is moving westward along Jasper Avenue, Edmonton's principal business thoroughfare two blocks south of the subject property.

Property sales in first block north of Jasper Avenue on the east side of 105th Street would indicate values ranging from $40,000 to $55,000 per 50 foot lot for a block of 5 lots. It would appear from these sales that a major development is contemplated.

In our opinion the area will be developed within the next ten years.

LAND: The land comprises two full lots and a small fraction of a third to make up a total frontage of 100.17 foot on the east side of 105th Street about midway between 102nd & 103rd Avenues. The lot length is 150' with 17' easement for a spur track off the lane. The building is situated on one lot to leave a lot for parking and access to loading dock at rear.

A curb cut permits access from 105th Street. The site is serviced with natural gas, sewer, water and electric power.

BUILDING: The building is four full storeys in height over a full basement. Construction is solid brick and reinforced concrete framing with concrete slab floors.

Roof and sky-lights are also of reinforced concrete.

The front is of tapestry brick and ceramic tile. A new modern front entrance of glass and aluminum has been installed.

Framing - There are 3 longitudinal reinforced concrete beams with concrete columns at 12' intervals. Lateral beams are at 6' intervals. The columns supporting the first floor are 20" x 20" and reduce by 2" at each successive level. There is no sign of movement or weakening of the structure.

Heating - is by steam from twin gas fired boilers in furnace room at

(Cont'd - Page 2)

basement rear. Conventional steam radiators throughout the building.

There are washroom facilities on each floor with the exception of the fourth.

The basement is used for storage with furniture repair department in front section.

The main floor has modern entrance at grade level with inside wide stair to first floor level. On this floor is the furniture display room and the stationery supplies department.

Front office area has offices finished in panel with tile floors and an attractive furniture sales room.

Main front stair continues upwards to all floors and has rubber treads to second floor.

On second floor and third floors the front sections are finished as offices and balance as storage and envelope factory.

Fourth floor is used for storage only.

Two side by side freight elevators at rear of building serve all floors and basement.

The building is presently occupied by one tenant but is readily adaptable to separate floor occupancy if ever required.

Generally the building is sound, property is "close-in" with adequate parking area and with firm lease to national tenant to span transition phase of the area this would be an important holding in the expanding downtown business section.

...o...

APPENDIX C

Heritage Officer's Summary of Historical and Architectural Information

BUILDING NAME AND ADDRESS - H.V. Shaw Building
10229 105 Street

AGE

1914 - The building was originally constructed as the Edmonton Cigar Factory for H.V. Shaw. It was designed by the local architectural firm of Magoon and MacDonald. In 1919 Shaw defaulted on the mortgage and the building was acquired by McDougall and Secord Ltd.. Between 1930 and 1950 the building housed many long-term tenants, mainly food brokers and wholesalers. Currently the Shaw Block is used for commercial purposes at the ground floor, artists studios and a print shop.

HISTORICAL

Person/Organization

The Shaw building was originally constructed for H.V. Shaw, a well known Edmonton entrepreneur and cigar manufacturer who came to Edmonton from Minneapolis in 1901. In 1914 he built the Shaw Block and by 1917 was employing 90 people to produce his La Palma, Major Reno and La Consequentia cigars. In 1919 Shaw suffered a severe economic setback and was forced to close the factory. He subsequently lost the building to his mortgage holders.

Shaw later tried to start another cigar factory but this too failed. He later entered the automotive business and the insurance field.

Shaw was a prominent Edmonton citizen and belonged to the Shriners and the Rotary Club. He died in Edmonton in 1959 and this building stands as a record of his entrepreneurial spirit and business activities.

Event

This building is associated with the incredible business boom that Edmonton experienced prior to World War I which was characterized by unfettered optimism and economic growth. That Shaw lost the building to one of Edmonton's largest real estate and financial management companies replays a story that has happened time and again throughout Edmonton's history.

It is also associated with World War I because Lt. Col. Griesbach of the 49th Battalion of the Canadian

Expeditionary Force used the first floor for squad drills during the mobilization of forces during the first weeks of World War I.

Themes

This building stands as a reminder of the development of Edmonton's manufacturing industry during its first boom. The economic boom of pre World War I was the most intense in Edmonton's history and Shaw's building is a tangible record of the optimism and faith in the future of Edmonton expressed by its citizens.

ARCHITECTURE

Architect/Builder

The Shaw Building was designed by the well-known Edmonton architectural firm of Magoon and MacDonald. Herbert Alton Magoon, originally from Quebec, received his training in architecture in Chicago and practised in Iowa and Nova Scotia before coming to Edmonton in 1904. George Heath MacDonald came to Edmonton with Magoon in 1904 and worked as a draughtsman in his office. In 1911 he graduated with a Bachelor of Architecture from McGill and returned to Edmonton where he became a partner with Magoon in 1912. Together they designed a large number of major city buildings including: Old St. Stephen's College (1911); Rothesay Apartments (1914); the Shaw Block (1914); the Metals Building (1914); the Public Library Building (1923); the Salvation Army Citadel (1925); Schwermann Hall (1926); the Ramsey Block (1927); the Ashdown Warehouse Addition (1928); and the T. Eaton Co. Mail Order Building (1929). In addition individual design work credited to Magoon includes the McDougall Methodist Church (1909) and the Tegler Building (1911). MacDonald designed Robertson Wesley Church (1914) and the Federal Building (1954).

The Shaw Building was constructed by Mr. Hall, a local builder, for a tender cost of $55,000.

Design

The building's exterior form and massing display elements of the Chicago School of Architecture which had a significant impact on the design of commercial architecture of this period. The vertical emphasis of brick piers, repetitive recessed spandrels and generous windows are all indicative of this influence. The

piers as gothic buttresses, the richly articulated upper facade and the lower concrete string courses provide the building facade with a clearly defined classical base, mid-section, and top. The decorative treatment of the brick facade with its recessed checkerboard parapet panels, and multiple archivolts of contrasting brick and stone voussoirs over the fourth floor windows make this a unique facade in Edmonton. As well, the large period signs painted on the south side of the building are prominent examples of sign design of the time.

Construction/Materials

The Shaw Building was intended to be built as one of the first completely fire-proof buildings in Edmonton and used the latest technology of the time to this end. It is constructed from reinforced concrete with red tapestry brick cladding. Cast concrete is used for window details and decorative plaques. A reinforced, cast-in-place concrete structural system was used grid rather than the more common timber framing. Magoon and MacDonald were leaders in the use of new building technologies and conducted extensive research into construction methods. The extensive use decorative use of brick and cast concrete is also unique for a warehouse building in Edmonton.

Alterations

The exterior facade has had minor changes which detract only minimally from the overall strength and focus of the design. Little interior partition alterations and changes to interior finishes have occurred. No major structural modifications have been made.

URBAN CONTEXT

Landmark Status

The building is the tallest structure on the east side of the street and covers the entire available lot. Its siting, height, materials, decorative facade and painted wall signs make it an important and highly visible component of the area. It is an important visual landmark because of its central block location, its massing, decoration and painted advertising.

Streetscape

This building is of particular importance as it forms part of the transition area between new construction encroaching from the west and the older warehouse district to the east.

Urban Design

Although somewhat distant from the remainder of the older buildings in the warehouse district, its strong visual form and unique architectural detailing give it an important urban presence. It makes a significant contribution to the continuation of the human scale and historic interest of the area.

APPENDIX D

Alberta

LABOUR
General Safety Services Division
Elevator and Fixed Conveyances

702, 10808 - 99 Avenue, Edmonton, Alberta, Canada T5K 0G5 403/427-5384

Cory Cunningham Architect Ltd.
1502, 10117 Jasper Avenue,
Edmonton, Alberta
T5J 1W8

1991.03.25

ATTN: Paul Chung

SUBJECT: North Freight Elevator
Shaw Building, Edmonton (a.k.a. Hill & Wilson Bldg.)
Change of classification to passenger elevator
Our File: E000710

Dear Mr. Chung,

This will confirm our telephone conversation on March 21, 1991. Regarding your proposal to modify the above referenced elevator for regular passenger service, it is our feeling that Clause 10.2.11 of the B44 Safety Code for Elevators must be adhered to.

In essence, this clause requires that the elevator be brought up to present day standards for passenger elevators.

Included is replacement of existing landing doors and car gates with horizontally sliding doors. This may somewhat detract from the desired effect. However, we feel that the safety of users which may include the infirm and children would otherwise be jeopardized. The movement of door panels from below and above the opening could result in injuries to persons caught between the closing panels.

Also, included is a requirement for an unperforated car cab enclosure. The elevator cab at present has, I believe, an open work roof and open areas in upper portions of the walls. We are prepared to discuss options on this, our goal being to minimize the risk of injuries due to persons putting fingers or objects through openings.

In addition, our regulation requires that engineer endorsed drawings and specification in respect of alterations of this nature be submitted for approval. It is expected that considering the scope of Clause 10.2.11, the submitting engineer would evaluate the design of existing basic elevator components for compliance before designing the remaining alterations.

While there are many details that are not addressed in this letter, I believe I have addressed your fundamental question about the feasibility of using the elevator "as is" to the extent possible for passenger service. If your require further assistance, please call.

Yours truly,

R. J. Karen, C.E.T.
Senior Inspector

RJK/vr

c.c. Zaicana Real Estate Ltd. 12629 - 124 St., Edmonton, Attn: The Manager

APPENDIX E

Stuart Olson
CONSTRUCTION
12838 - 146 STREET, EDMONTON, ALBERTA T5L 2H7
TELEPHONE: (403) 453-4388 FAX: (403) 455-4178

April 23, 1991

Mr. Cory Cunningham
CORY CUNNINGHAM ARCHITECT LTD.
1502, 10117 Jasper Avenue
Edmonton, Alberta T5J 1W8

RE: H.V. SHAW BUILDING REDEVELOPMENT
10229 - 105 Street N.W.

Dear Mr. Cunningham:

Per your request we have visited the above property and reviewed existing conditions for redevelopment into residential.

Based on information provided to us and the assumptions listed in the pages that follow, our conceptual estimate of redevelopment costs is:

Parking Garage	$ 245,000,
Levels 1 through 5	$ 992,000,
Total	$1,237,000.

Based on a gross area of 29,720 sf, this total translates to a cost of $41.62 per square foot.

In conclusion, it is our opinion that the project costs outlined above and in the attached pages are only attainable in a construction management arrangement, using design/build trade contractors wherever possible.

Very truly yours,
STUART OLSON CONSTRUCTION, INC.

Matthew R. Parkins
Senior Estimator

ESTIMATE SUMMARY
Bid # 5: H.V. SHAW BLDG.

SUBDIVISION 2.0: DEMOLITION	96000
SUBDIVISION 2.2: EARTHWORK	14746
SUBDIVISION 2.3: PILES & CAISSONS	10271
SUBDIVISION 2.5: PAVING & SURFACING	1650
SUBDIVISION 2.6: PIPED UTILITIES	25000
DIVISION 2: SITE WORK	147668
SUBDIVISION 3.1: CONCRETE FORMWORK	46048
SUBDIVISION 3.2: CONCRETE REINFORCING	17655
SUBDIVISION 3.3: C.I.P. CONCRETE	41801
DIVISION 3: CONCRETE	105505
SUBDIVISION 4.2: UNIT MASONRY	11300
DIVISION 4: MASONRY	11300
SUBDIVISION 5.1: STRUCTURAL METALS	19800
SUBDIVISION 5.3: STEEL DECK	5262
SUBDIVISION 5.5: METAL FABRICATIONS	25165
DIVISION 5: METALS	50227
SUBDIVISION 7.1: WATER & DAMPPROOFING	729
SUBDIVISION 7.2: INSULATION	14518
SUBDIVISION 7.4: MANUF. ROOF/SIDING	16490
SUBDIVISION 7.5: MEMBRANE ROOFING	18900

ESTIMATE SUMMARY
Bid # 3: H.V. SHAW BLDG.

SUBDIVISION 7.8: SKYLIGHTS	19200
DIVISION 7: MOISTURE & THERMAL	69837
SUBDIVISION 8.1: METAL DOORS & FRAMES	13057
SUBDIVISION 8.2: WOOD & PLASTIC DOORS	7042
SUBDIVISION 8.3: SPECIAL DOORS	2880
SUBDIVISION 8.4: ENTRANCES/STOREFRONT	2500
SUBDIVISION 8.6: WOOD/PLASTIC WINDOWS	26793
SUBDIVISION 8.7: HARDWARE	15200
SUBDIVISION 8.8: GLAZING	12480
SUBDIVISION 8.9: GLAZED CURTAIN WALL	41206
DIVISION 8: DOORS & WINDOWS	121159
SUBDIVISION 9.2: PLASTER & GYBSUM BD.	141025
SUBDIVISION 9.5: ACOUSTICAL TREATMENT	7500
SUBDIVISION 9.6: FLOORING & CARPET	15000
SUBDIVISION 9.9: PAINT & WALLCOVERING	30000
DIVISION 9: FINISHES	193525
SUBDIVISION 10.9: MISC. PURCHASES	30000
DIVISION 10: SPECIALTIES	30000
SUBDIVISION 14.2: ELEVATORS	40000
DIVISION 14: CONVEYING SYSTEMS	40000

ESTIMATE SUMMARY
Bid # 5: H.V. SHAW BLDG.

SUBDIVISION 15.1: PIPE & FITTINGS	46120
SUBDIVISION 15.4: FIRE EXTINGUISHING	46464
SUBDIVISION 15.5: HEATING	96590
DIVISION 15: MECHANICAL	189174
SUBDIVISION 16.1: SERVICE/DISTRIBUTION	28800
SUBDIVISION 16.6: LIGHTING	49055
SUBDIVISION 16.8: SPECIAL SYSTEMS	4000
DIVISION 16: ELECTRICAL	81855
BID # 5 SUBTOTAL	1040249

ESTIMATE SUMMARY GRAND TOTALS
Bid # 5: H.V. SHAW BLDG.

MARKUP NAME	MARKUP AMOUNT ($)	TOTAL ($)
BID SUBTOTAL		1040249
CONTING.	52012	1092262
PERMITS	10402	1102664
TESTING	20805	1123469
FIRE INS	1664	1125134
LIAB INS	1560	1126694
GEN. EXP	62415	1189109
FEE	47564	1236673
** BID GRAND TOTAL **		1236673

APPENDIX F

Barnett Treharne Yates Cost Estimate

April 1991
Sheet 1

COST SUMMARY

Apartment Block (2 601 m^2)

Element	Estimated Cost	Cost/m^2
Demolition	70 000	26.91
Site Work	11 000	4.23
Lowest Floor Construction	5 000	1.92
Upper Floor Construction	17 000	6.54
Roof Construction	27 000	10.38
Roof Finish	29 000	11.15
Exterior Walls	84 000	32.30
Windows	113 000	43.44
Exterior Doors and Screens	14 000	5.38
Balconies and Projections	15 000	5.77
Interior Partitions	81 000	31.14
Interior Doors	33 000	12.68
Stairs	87 000	33.45
Elevators	40 000	15.38
Floor Finishes	31 000	11.92
Ceiling Finishes	20 000	7.69
Wall Finishes	16 000	6.15
Electrical	105 000	40.37
Mechanical	311 000	119.57
Overheads and Profit	89 000	34.22
Sub-Total	**$ 1 198 000**	**$ 460.59 m^2**
G.S.T. (7%)	84 000	32.30
TOTAL ESTIMATED COST	**$ 1 282 000**	**$ 492.89/m^2**

COST SUMMARY (continued)

Parkade (1 200 m^2)

Element	Estimated Cost	Cost/m^2
Normal Foundation	39 000	32.50
Basement Excavation	12 000	10.00
Lowest Floor Construction	24 000	20.00
Upper Floor Construction	10 000	8.33
Roof Construction	92 000	76.67
Roof Finish	28 000	23.34
Exterior Doors	4 000	3.33
Interior Finishes	15 000	12.50
Fittings and Equipment	12 000	10.00
Electrical	30 000	25.00
Mechanical	39 000	32.50
Overheads and Profit	24 000	20.00
Sub-Total	**$ 329 000**	**$ 274.17/m^2**
G.S.T. (7%)	23 000	19.16
TOTAL ESTIMATED COST	**$ 352 000**	**$ 293.33/m^2**